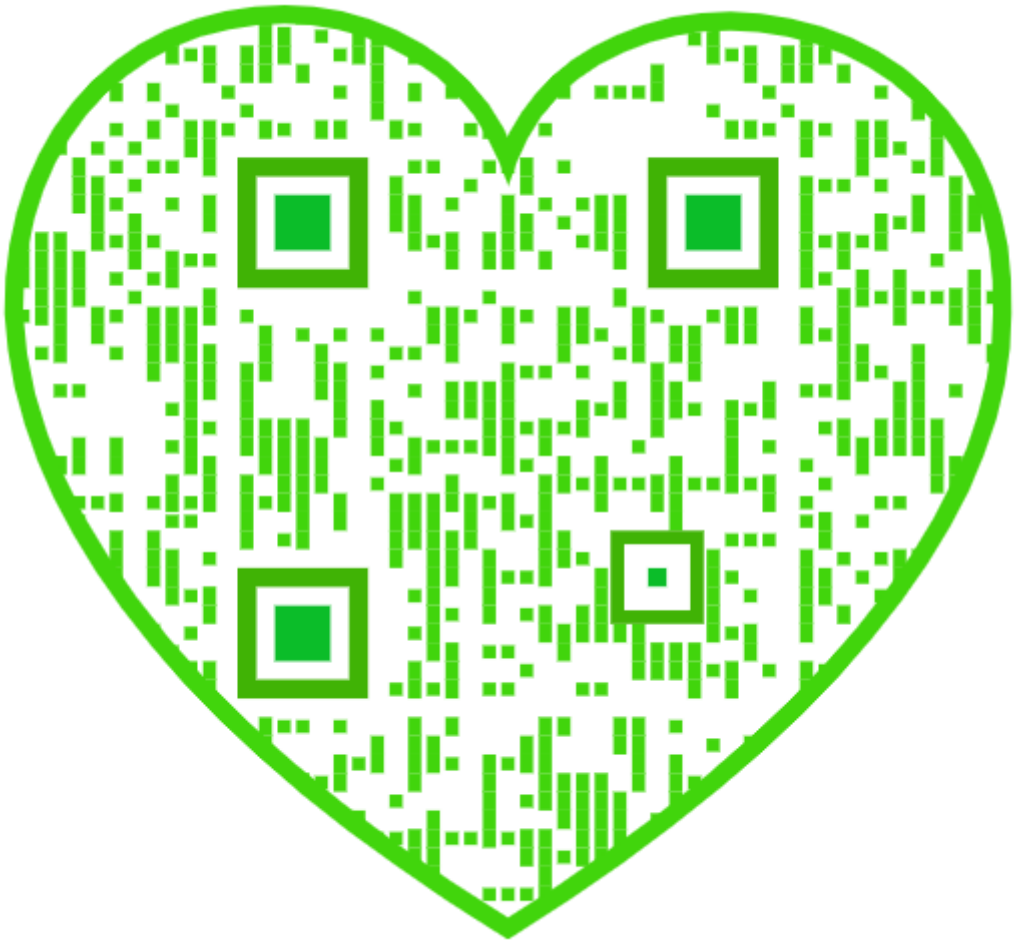

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HANDBOOK OF ANGLING.

LONDON

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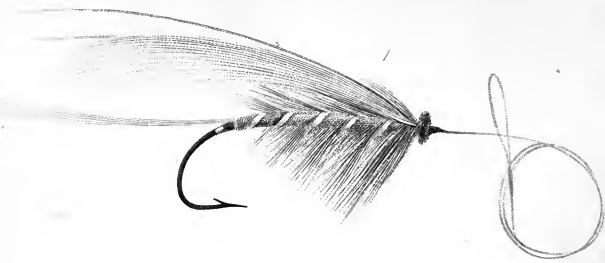

BRITANNIA

ERIN GO BRAGH

[Fitzgibbon, Edward]

A HANDBOOK

OF

ANGLING:

TEACHING

FLY-FISHING, TROLLING, BOTTOM-FISHING, AND SALMON-FISHING.

WITH THE NATURAL HISTORY OF RIVER FISH, AND THE BEST MODES OF CATCHING THEM.

BY

EPHEMERA

Of Bell's Life in London,

AUTHOR OF 'THE BOOK OF THE SALMON' ETC.

'I have been a great follower of fishing myself, and in its cheerful solitude have passed some of the happiest hours of a sufficiently happy life.'—PALEY.

FOURTH EDITION

LONDON:
LONGMANS, GREEN, AND CO.
1865.

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1865

PREFACE

TO

THE THIRD EDITION.

To the previous editions of this practical work I prefixed somewhat lengthened prefaces. They were then necessary, as a bush is to a new tavern not as yet renowned for its good wine. The words 'Third Edition' in the present title-page are more significant than any preface. They prove that I am still called for in the fishing market. I obey the call, am thankful for the favour I have found, and shall say very little more.

Five years have elapsed since I read this angling treatise through and through. Recently I have done so twice in preparing this third edition. The book appeared to me as if it had been written by another—like a long-absent child whose features I had almost forgotten. I could judge of it then with less partiality than when it was fresh from my brain, and bore the defect-covering

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charms of a newly-born. Its defects, though perpetrated by myself, I have seen as plainly as if they were done by others, and I have treated them accordingly—removed them remorselessly.

I have, I think, improved the general style of the volume; excised repetitions, rejected incorrect instruction, unsound suggestion, opinion, and advice, and replaced them by accurate information and counsel. The list of trout-flies I have shortened and simplified, and given no fancy patterns. As it now stands, the list is perfect. The natural history of salmon I have re-written. As a *résumé* of the habits of that fish, I can recommend it for its precise truths. The list of salmon-flies for the best rivers in the British Isles I have remodelled after the best specimens in that gallery of ideal insect beauties which I painted for 'The Book of the Salmon.'

At this third time of asking, gracious Public, you shall take me absolutely for better, as the 'or for worse' can be no longer contingent.

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A

HANDBOOK OF ANGLING.

CHAPTER I.

ANGLING DEFINED—DIVIDED INTO THREE BRANCHES—EACH BRIEFLY DESCRIBED—THE SUPERIORITY AND MERITS OF FLY-FISHING.

ANGLING—the art of taking fish with rod, line, and hook, or with line and hook only—is one of the oldest of out-door amusements and occupations in every country. At first the modes of practising it were exceedingly rude, and they still remain so amongst uncivilised nations. There are tribes in existence that now, as heretofore, fashion the human jaw-bones into fish-hooks. Even unto this day angling implements, amongst many of the politest people of Europe, their amusements, unfortunately for themselves, being chiefly in-door ones, are manufactured with imperfect roughness. The inhabitants of the British Isles alone, with their colonial descendants

cultivate all matters pertaining to rural sports, of whatsoever kind they may be, but particularly hunting, shooting, and angling, with that persevering ardour, comprising passionate study and active practice, which leads to perfection. In their efforts to acquire the surest, most amusing, most health-giving, and, I may say, most elegant modes of pursuing and capturing their game, be it the produce of field or flood, they call to their aid several ancillary studies, amongst which stands prominent one of the pleasantest of all, viz. that of the natural history of animals, and of other living things ranking not so high in the scale of creation. The hunter studies the habits of horse and dog, and of the *ferœ naturæ* he pursues with them, the fowler of the birds of the air, and the fisherman of the fish of the water. The general sportsman, a practical naturalist, if I may use the epithet, studies the habits of all. Hence knowledge, skill, and success; hence the accomplished sportsman, rarely found except amongst the best types of Englishmen, whether of high or low degree.

Though angling has been jeered at more than any other sporting practice, still no other subject connected with field-sports has been more minutely and extensively written upon. No sporting writer is so generally known as Izaak Walton, and his 'Complete Angler' has earned for him an im-

mortality which will last until the art of printing our language shall be forgotten. Angling, then, cannot be a theme unworthy of a modern pen; but the pen perchance may be unworthy of it, and so cause me to fail in my design, which is to write upon angling in a plain, connected, business-like way, teaching its modern theory and practice, together with the useful discoveries, inventions, and improvements that have been recently made in relation to it.

The art of angling is divided into three main branches, the general principles of which being understood, an acquaintance with minute detail will follow gradually as a matter of course.

The first branch embraces angling at the surface of the water, and comprehends fly-fishing with natural or artificial insects, the latter being of more general use. The second embraces angling at mid-water, or thereabouts, and includes trolling or spinning with a live, a dead, or an artificial bait—with a small fish generally, or its representative. The third includes bottom-fishing, that is, angling at or near the bottom of the water with worms, gentles, and many sorts of inanimate baits. Bottom-fishing is the most primitive, the commonest, and easiest mode of angling, the first learnt and the last forgot; trolling is less common and more difficult; fly-fishing is the most difficult and amusing of all, and though less

commonly practised than bottom-fishing in England, is more generally so than trolling, more particularly in Ireland, Scotland, and Wales.

Although in teaching an art it would be more regular to commence with the easiest branches of it, I begin, for several reasons, with fly-fishing, acknowledging it, however, to be that division of the art of angling which is learned the least easily. I shall only give one reason for my irregularity, viz. that he who has learned the practice of fly-fishing will readily learn the two other branches of angling. He will learn them more readily than if he began with either; for he who has begun with fly-fishing and succeeded must have attained quickness of eye and lightness of hand. If the reader should desire to be more methodical than I am, he has the power of being so, by reading this handbook as if it were written in Hebrew. He will then find the last first, and the first almost last. If he wishes for slow, but sure advancement, let him reverse the order of reading, moving from nearly the back rank to the centre, and so on to the front.

The long-continued, unbroken chain of ignorance that runs, in many instances, through the world is almost incomprehensible to the active mind. It is a miracle of visible darkness amidst the intelligence that surrounds us. 'The dictionary-making pensioner,' as Cobbett used to

call Dr. Samuel Johnson, defined angling, as a silly thing, practised by a fool at one end of a rod and line, with a worm at the other. Many stupid people still adhere to this very stupid definition. With the practice of angling they associate nothing beyond worms, punts, patience, cold and wet, a nibble and tittle-bat sport. A salmon caught by angling—with a diminutive artificial fly, a thin silkworm gut line, and a rod of pieces lighter and more limber than a lady's riding wand! No —no such prodigy in their opinion ever occurred. Believe me—yes, the largest salmon that have ever stemmed the deep rapids of the Shannon have succumbed to the cunning hand deftly manipulating such frail gear.

Let us after this see what fly-fishing is—whether it is a fool at one end of a rod and a worm at the other. The greatest names in arms, science, literature, and art—heroes, divines, mathematicians, poets, painters, sculptors — have been devoted to fly-fishing. Nelson's 'dear, dear Merton,' with its Wandle wandering by, offered him an attraction which he constantly revelled in, viz. fly-fishing. Sir H. Davy, Archdeacon Paley, Sir Francis Chantry, Sir Walter Scott, General Sir Charles Dalbiac, were enthusiastic fly-fishers. The Dukes of Argyle, Newcastle, Sir Hyde Parker, Mr. Sydney Herbert, Earl Grosvenor, Viscount Anson, and many other great

names, connected with the pulpit, the bar, bench, studio, and the stage, that I could mention, are constant and consummate practitioners of the pleasing sport. Even whilst I wrote (Sept. 1847), Her Majesty, the royal Consort, the eldest of their royal offspring, and a princely party, were indulging in the pursuit with rod and line of salmon and salmonidæ in the waters of North Scotland. Had the lexicographic pensioner been alive to witness this, how rapidly he would *dele* that definition of angling of his, which purblindness dictated! Other field-sports may be more exciting than artificial fly-fishing, but there is not one requiring more skill, or calling into exercise more intelligence and adroitness of mind and limb. A quick eye, a ready and delicate hand, an apprehensive brain, delicacy in the senses of touch and hearing, activity of limb, physical endurance, persevering control over impatience, vigilant watchfulness, are qualifications necessary to form the fly-fisher. His amusing and chanceful struggles, teeming with varying excitement, are with the strongest, the most active, the most courageous, the most beautiful and most valuable of river-fish, and his instruments of victory are formed of materials so slight, and, some of them, so frail—they are beautiful as well—that all the delicacy and cunning resources of art are requisite to enable feebleness to overcome force. The large,

vigorous, nervous salmon, of amazing strength and wonderful agility—the rapid trout of darting velocity, hardy, active, untiring, whose dying flurry shows almost indomitable resistance, are hooked, held in, wearied out, by the skilful and delicate management of tackle that would, if rudely handled, be warped by the strength and weight of a dace or roach. 'Tis wonderful to see hooks of Lilliputian largeness, gut finer than hair, and a rod, some of whose wooden joints are little thicker than a crow's quill, employed in the capture of the very strongest of river-fish. The marvel lies in the triumph of art over brute force. If the sporting gear of the fly-fisher were not managed with art—on the mathematical principle of leverage—he could not by its means lift from the ground more than a minute fraction of the weight of that living, bounding, rushing fish he tires unto death—nay, drowns in its own element. The overcoming of difficulties by the *suaviter in modo* forms one of the greatest charms of fly-fishing, and to my fancy is the pleasantest element of success that can be used in any pursuit. Persuade, but never drive.

The baits of the pure fly-fisher are imitations of insects in one or other of their forms. He fishes with imitations of the fly, the beetle, the grub, the caterpillar, and moth. These imitations are made of divers materials, the chief whereof are feathers,

fur, mohair, wool, silk, and tinsel. They are affixed upon hooks of various sizes, and by a process requiring the most skilful and delicate manipulation. The fly-dresser is a modeller of no mean attributes. He has to represent, by means of the most delicate substances of varied tissue and colour, insects, often complete atomies, and of changeable shapes and hues. Extreme neatness characterises all the paraphernalia of the fly-fisher. His sport requires the handling of nothing that will soil the best-bred hand. The composition of his bait extracts pain from no living thing. To know positively that his baits are good, he must to a certain extent be a naturalist. He must be acquainted with the outward appearance of several sorts of insects; he must know the divisions of the seasons in which they live and cease to be; he must know the climates and localities peculiar or otherwise to each species; he must know their names, and be able to classify them, if not scientifically, at least piscatorially; he must know those that prove the most attractive food for each kind of fish he angles for: in fact, he must possess a fund of knowledge that will cause him to be considered an accomplished man by the members of every rational society.

To render the pleasures attendant on his pursuit complete, he is invited, if he seeks for super-

lative success, to practise it amongst the most picturesque panorama designed by nature. The swift stream that dashes along the hill's side, the brook that runs through the valley, the mountain waterfalls—the currents foaming between moss-grown rocks, or brawling over a pebbly bottom, are the scenes of the fly-fisher's triumphs. Salmon and salmonidæ, happily the most frequent prizes of the fly-fisher's skill, are not to be found in the sluggish, turbid waters that flow through flats and fens, but breed in, and inhabit, in due season, those delightful streams that play through table-lands. Their favourite food is not the offal of slime or mud, but the insects that disport on the surface of clear water. There the bounding salmon tribe seek them, and in that search they encounter the fatal artificial insect of the fly-fisher, and all the deadly resources of his craft. The shape, the colour, the flavour of the fly-fisher's fish, do not mis-beseem the beauties that surround salmon, trout, and grayling streams. As the plain, nutritious sheep thrives well upon Leicester and similar pasturage lands, so in their waters breed prolifically the heavy carp, chub, and tench. On the contrary, the heather of the Highlands is the haunt of the dainty doe and wild stag; and the crystal waters of their inland cliffs produce the aristocracy of the finny race. The concordances of life, society, nature, are

admirable, unerring, and tally in delightful diversity. The smooth waters of lowland rivers and ponds afford the placid bottom-fisher his sport. The mountain torrents and lakes hold the quarry the active fly-fisher is ambitious of capturing. The broad, straight, even thoroughfares of the world afford comfort and competence, acquired bit by bit by efforts, slightly but sufficiently stimulating to fresh and repeated exertion. The narrow, precipitous paths of life lead to fame, high honours, and high rank; and the ascent, rendered enchanting by the allurements of ambitious hope, is gained by daring activity, which never flags but for breath to bound onward more and more bravely. The accessible streams that meander soothingly through soil for the sickle and scythe, yield to the industrious bottom-fisher a full pannier by a slowly and pleasantly accumulating process. The fly-fisher, with haply a few casts of his artificial baits, surcharges his capacious creel with salmon or trout, whose retreat in waters rushing by crag and fell he has attained by paths which none, save the sportsman intent on high game, would choose to tread.

I have now run rapidly through the salient merits of fly-fishing. With less precipitation, I will explain the practice of it.

CHAPTER II.

THROWING THE LINE AND FLIES—HUMOURING THEM—FISHING A STREAM—STRIKING, HOOKING, PLAYING, AND LANDING A FISH.

Our language contains many pretty, pithy, and largely expressive figures of speech. One man says of another, 'he is the best "whip" in England.' We understand by this little phrase that he is vaunted to be the best driver and manager of horses in harness in the kingdom. So when we say 'he throws a line or a fly better than any man we know,' we mean to assert that he is the best fly-fisher of our acquaintance. The possession of the one power commonly, not always, implies the possession of all the other necessary ones. Throwing well the line is an indispensable fly-fishing qualification, the first to be learned, always called into play, and without which other attributes are nearly valueless. You may hook a fish well, play a fish well, land a fish well, but you will not often have an opportunity of doing so unless you throw a line well. We judge of a fly-fisher by the manner in which he casts his line. If he does so with ease and elegance, and

efficiently, we set him down as an adept in all the minutiæ of the art; if he does not, we conclude that he is a tyro. We confess our conclusions may be frequently wrong. That, reader, you may not long remain in the category of novices, let there be, during the fly-fishing season, for you, *nulla dies sine lineâ*.

I can see no wonderful difficulty in throwing a line well. Many certainly do not cast well, by reason, chiefly, of having adopted a bad method at the outset. It is better to have no fly-fishing habitude at all, than to have a bad one. Commence on the proper principle; persevere, and you must become a proficient.

How to throw the Line and Flies.—You are a beginner, I presume, and have never handled a rod before. Let the rod for your novitiate be ten or eleven feet long; its play inclining rather to faulty stiffness than to over-pliancy. Put the joints or pieces together, the rings standing in a straight line the one to the other, that your line may run evenly between them without any tortuous impediment. Affix your winch or reel with its handle towards the left side, and draw out your line through the rings, until there be about four yards of it uncoiled beyond the last ring of the top joint. You have now quite sufficient line out to commence the practice of casting with it. Let your winch and the rings of

your rod be on the under side of it when you practise casting.*

You are now ready to begin. Grasp your rod, in your right hand, a little above the winch, but not tightly. Your hand must not close firmly with the thumb turned over your knuckles, as if you were about to strike a blow. Your fingers must simply entwine the rod, not squeeze it, and your thumb must lie straight with your arm on the upper part of the butt, the first joint being very slightly bent, and the fleshy or flat fore-part pressing on the rod. Hold your rod up almost perpendicularly, and pointing rather to the left side. Take the tip of the line between the fore-finger and thumb of your left hand. Poise your rod loosely and easily, and see that it balances freely in your right hand. Be devoid of that fear which begets awkwardness. What injury can you do? You are not going to explode a mine. You

* This is the English, and more convenient method. The winch, being underneath the butt, does not come in contact with your fore-arm as you throw, and therein lies the greater convenience, but it is counterbalanced by having the rings also on the under part of the rod, whereby the line runs and works upon them rather than upon the rod. The Irish generally, and properly, affix the winch with the handle towards the right, and fish with the rings upwards. In this way the line grates less upon the ring-wires, and running upon and along the rod, instead of beneath it on the rings, it is more influenced by the qualities of the rod, and can be thoroughly managed by them. In most cases, play your fish with the winch upwards.

are merely going to throw a thin line with a slight limber rod upon the water. What if you fracture one or both in the attempt? The damage can be remedied.

I suppose you now on a bank above some river's surface, all ready for your first cast. Move your right wrist and fore-arm round to the right, letting go, just as it begins to get taut, the tip of the line in your left fingers, and bring round from left to right over your right shoulder the upper part of your rod, describing with the point of it an irregular—a horse-shoe—circle, and then cast forward with a flinging motion of the wrist and fore-arm. The motion of the wrist must predominate over that of the fore-arm and elbow-joint. If you follow the above motions exactly and with freedom, from four to five feet of your line, supposing you to have between three and four yards of it out, must fall lightly upon the water. If that length does not so fall, you are wrong, and you must go on casting and casting, practising and practising, until you are right.

At first you will find, unless you are very handy and a very apt scholar indeed, that nearly all your line will fall upon the water, and that the top of your rod will come in contact, or nearly so, with the surface of it. These are the greatest drawbacks to throwing a line well, and if not overcome, the learner must never expect to be-

come an expert fly-fisher. With might and main he must struggle to vanquish them. They are caused by letting the fore-arm fall too low whilst casting, and bending the body forward in unison with the downward motion of the arm.

Here is the remedy. When you have made your casting movement—brought round your rod and line over the shoulder, and propelled them forwards, the motion of the wrist and elbow-joint must be gradually checked the instant the line is straightening itself in its onward course. The body must be upright, the chest held rather back, and the bust must not assume any marked forward or stooping position. You will find, if you hold your rod properly, that the end of it nearest to you, the part between your hand and the spear or spike, will come in contact with the under part of your fore-arm just as your line is approaching the water. This contact will prevent the point of your rod following the line so low as to cause a great part of the latter to roll on to the water. Stand with your left foot a little forward, and flat on the ground, with a firm purchase; the right foot a little behind, the toes turned out, and the ball of the foot touching the ground with a slight springy pressure. Your left upper arm must hang loosely by your side; the fore part curbed from the elbow-joint will bring your left hand over and opposite to the outer ends of the right

lower ribs. Your position, the limbs, &c. arranged in the above way, will be easy and graceful, allowing free play to all the muscles required to be brought into action.

I deem you now sufficiently skilled by practice to throw four or five yards of line well, and with satisfactory ease. Double, then, the length of your line out. The right-arm motion must be no longer limited to the wrist, fore-arm, and elbow joint, but must extend to the upper and shoulder joint. The *os humeri* and deltoid muscle must be called into requisition with fine free vigour, but not with so much of the latter as if you were about to strike a knock-down blow. The whole of the arm must be brought round to the right with an easy, large sweep, and the line thrown forward well from the shoulder. There must be no coachman-like jerk with the wrist backwards, as the front portion of the line is descending to the water, but the hand must follow the rod, and stop by a well-timed degree of suddenness, so that the line will fall on the water with a somewhat quick—not plashing—rather than a lazy floating motion.

As soon as you can throw from eight to ten yards of your reel-line with the power of making not more than a yard or two of the front portion of it fall lightly on the water, and in whatsoever direction you may choose, add to it what is called

the 'foot' or 'casting-line' of moderately thick silkworm gut, in length about two yards. You will now have ten yards of line, more or less, to throw with, and you must practise until you can cause the gut-line to fall upon the water before any part of the reel-line touches it. Do not be in a hurry to put on flies and fish. When you have succeeded in throwing your gut-line with freedom, with the ability of making it alight first upon the water—when you can prevent the top of your rod from descending too low—when you can hinder any part of your reel-line from making a more rapid descent than your casting-line,—you may begin to throw from left to right, with a backward twist or slight sweep of the wrist and arm. Hitherto you have been throwing from right to left, and that is the proper and most common way. But circumstances will arise, caused by the direction of the wind, your position with regard to the water, and obstructions on and in it, in the shape of trees, roots, rocks, &c., that will force you to cast from left to right, and sometimes underhand, as it were.

I shall say nothing of throwing with the left hand, because you may, if you like, become able to do so, when you have learned to throw overhand and underhand with the right arm. It is not by any means a necessary accomplishment.

You have begun throwing by moving the point

of your rod from left to right over your right shoulder, bringing it parallel with the right side of your head, and you have then been taught to cast straightforwards, or rather from right to left. If you have learned to do all this well, have no fear; you must succeed in fly-fishing. But to be still more *au fait* in throwing the line, take the end of it in your left hand, and bringing the point of the rod to that side, move your wrist and fore-arm backwards to the right, turning the hand up, so that the finger-nails will point to you. Let go the line, and its point will pass first slightly to the left of you, and then turn over and fall on the water on your right side. Although you will not be able to throw in this way so long a line as overhanded from right to left, you will be able to throw it to a moderate distance easily and lightly. Take a coachman's whip in your hand, and work it right and left, that is, fling the thong sharply and shortly before you to each side, making the lash crack each time, and you will acquire a freedom in the wrist (but nothing more) that will be of service to you in handling the fly-rod. A coachman driving four-in-hand, with a long, limber whip-handle and tapering thong, very frequently uses the fly-fisher's motions, but does so in a manner too cramped, sudden, harsh, and violent. Observe him touching playfully the heads of his leaders with the point of the lash,

now the off-leader on the right side, and then the near-leader on the left side about the ear, and you will see how he works from right to left and from left to right. Imitate him, but most cautiously. Try and catch his ease and neatness, but avoid the narrowness of the circles he describes with whip-handle and thong, and the rapidity and jerking of his wrist-motions.

All you now want is to throw with precision. Let there be a mark in the water, and first try to throw a little above it, and in the next cast, to throw a little below it. Then try to throw upon it, over it, beyond it, and on your own side of it. Having succeeded in throwing with accuracy where there are no obstructions, seek spots of the river where they exist—where there are overhanging branches of trees, weeds, rocks, or the ends of piles appearing above the surface of the water. Practise in these difficult spots assiduously until you can surmount the obstructions, and are generally able to avoid getting entangled amongst them.

Practical observation is better than any written lesson, because example—good example I here mean of course—is far more cogent than precept. When you see an old fly-fisher of acknowledged reputation on the water, watch his movements, and gain knowledge from what you see as well as from what you hear. You see, most likely,

that he performs what you cannot. Observe his method, follow it, and you will overcome what had hitherto been a difficulty to you. If he permits you to accompany him during the day, do so; and if he will give you any oral instructions, be thankful to him. If happily they agree with those you will find in this book, practise them perseveringly. Attend always to a multitude of corroborating, intelligent, and disinterested witnesses.

You have been all this while learning to cast with reel-line and casting-line without any flies on the latter. Commence with a single fly of rather large size, dressed on a full length of gut, and looped to the end of your casting-line. That fly is your tail-fly, or 'stretcher.' You may soon be informed of your proficiency in throwing this fly. The information will be conveyed to you in the very pleasantest way, viz. by fish rising at your fly. When large ones do so, it is a proof that you have thrown your fly properly on the water, and you may now add a second fly, which will be your first 'dropper.' It should be a size smaller than your stretcher, and fastened on a yard higher up from it at one of the joinings of your casting-line. During your first season I advise you not to fish with more than two flies on your line at the same time. You may lengthen your casting-line from two yards to three, and

the latter length will be found the best average one for fly-fishing with a single-handed rod. In your second year use three flies, placing them from eighteen inches to two feet apart. The length of gut to each dropper need not exceed two inches. The usual way of attaching flies is by looping them on. The only fly I loop is the stretcher. My droppers having a knot at the end of the gut, I fasten in between the sliding-knots by which I tie together the links of gut that form the casting-line. I prefer these sliding-knots to the whipped ones, because they are lighter, and enable me to attach and detach my knotted droppers more quickly than if they were looped. The knots will be found quite strong enough if you make them double; or even single, provided you do not cut off the gut too closely to them. I cannot clearly explain in writing how these sliding-knots are made, but any fishing-tackle maker will show you.

I have now prepared you for fishing with three flies on three yards of gut casting-line. That line should be thicker towards the hand, and dwindle away gradually to the end farthest from you. If the extreme end of your line should be the thickest part of it, common sense will tell you that when you cast it there must ensue a more rapid and heavy descent upon the water than when that end of your line is the finest part

of it. The gradual tapering of the line causes it to stretch out with the cast without kinking or coiling, and to fall lightly and straightly on the water. Reel-lines (the best sorts are platted of half hair and half good silk) are twisted in the shape of a spindle or a porcupine's quill—thick in the middle and tapering off in nice gradation at each end. A line so shaped has this advantage:—when you have nearly worn out one end, you can have recourse to the other next the winch, which is comparatively fresh, having been wound first on the reel, and hitherto in great part protected from the action of air and water. The used part, if not too much used, is to be now wound next the winch. Your gut casting-line must be formed of links each finer than the other, but not with marked disproportion. The thickest link must be that next to the reel-line, and the thinnest that farthest from it—that to which your stretcher or tail-fly is to be looped. Each of the intermediate links of gut must be finer than the other, round, and clear-coloured before dyed, and without a flaw.

Fishing a Stream and humouring your Flies.—Touching the practice of angling, there are many moot points. One maintains this, another maintains that, and a third differs from both. In doing anything, there is but a right way and a wrong; but common sense has not followers

enough to give the right a majority. An impartial president casting up the votes for the wrong must too often, I fear, pronounce, 'The Ayes have it.' Opinions are divided as to how a stream is to be fly-fished. Some say, Begin at the head of a stream and fish it downwards with the current. Others say, By no means:—commence at the tail of a stream and fish upwards to its head. Who is to decide, when *adhuc sub judice lis est?* Will the litigants leave it to my arbitration? If they do, my decision is, as a general rule, to be swerved from on rare contingency—first fly-fish a stream upwards from tail to head, and then, if circumstances make you think it advisable after giving yourself and the water a rest, try down, with, if necessary, a change of fly or flies, from head to tail. By this means you avoid disputed extremes, and, treading the best of all paths, *medio tutissimus ibis.*

You are approaching a stream to fish it. Keep as far as possible at first from the edge of the bank you stand on, and throw somewhat to your left side on to that part of the water running next you—to your left, if you are fishing from the left bank, and *vice versâ.* Float your flies down, humouring them nattily on the surface of the water, or ever so little beneath it, obliquely to your left, bringing them round at a civil distance below you, and close under the bank.

Repeat your cast, moving one step higher up, still keeping as far as you can from the water-side. When you have fished that nearer side sufficiently, approach the bank, coming down again to the tail-end of the stream, throwing as far as you can across it, humouring your flies as in the first instance, not drawing them directly across to you, but floating them lightly down the stream, until your line begins to grow taut, and the stream has a drag upon it, when you must repeat your cast, a little higher up the stream than before. Pursue this plan until you have fished the stream as widely from you as you can, and up to its head formation. I well know this method will be deemed by many too stringent. Never mind: when you are out of your apprenticeship, you can act more freely.

The objections to fishing a stream in the above way are, that by so doing you expose your back and side too much to the fish above you, and you lose too much time and ground by this backward process. In my opinion, these objections are not fatal. If you keep a proper distance from the side of the stream, you will obviate the first objection. The second I think of little moment; for sometimes you cannot fish too carefully or too slowly, inch by inch, especially if the stream be a choice spot, and fish upon the rise; whilst, under contrary circumstances, your progress may be

more rapid, hurrying over chanceless parts, and fishing for luck quickly right a-head, hastening on to more favourable localities.

There is but one main objection to commencing at the head of a stream, and I do not see how it can be well got over. You hook a fish at the head of a stream, and must generally play him downwards. What is the consequence? Is it not plain that you must disturb many fish below you, over which you have not as yet thrown your flies? I think it is evident; and if I did not think so, I should be decidedly in favour of down-stream fishing, as being the most rapid, pleasant, and apparently the most natural way. At the head of a stream you hook a large and game fish. He darts across it, down it, through it in every direction, at one time splashing on the surface of the water, at another doggedly struggling beneath it, or rushing through it, as if an otter were at his tail. His struggles are at any rate extraordinary, and think you not instinct tells other fish, perhaps shoal companions, that there is something wrong? Surely they see and hear—not usual sights and sounds, but somewhat alarming ones, because they are not customary. May we not infer that they dread an enemy at hand—that they see a fellow fish in danger, and are cowed into skulking for safety, at least for a time? All anglers will acknowledge something like this;

but then, some of them argue that the effects of the disturbance are only temporary, and not so lasting as those which arise from the fish seeing you, as you fish a stream upwards. You can avoid their seeing you, but you cannot, unless you whip a fish out of the water the instant he is hooked, or coax him against the current, prevent the more or less disturbance he will cause according to his strength and unflinching struggles, his weakness or his want of game. It is argued, you can remedy it, by not fishing for some time after you have been playing a fish, or by removing to some other spot, and coming back again in due time to the place you had disturbed. This plan will cause you to lose time at all events, and, may be, the very nick of it during which fish are rising freely. I have generally succeeded best by fishing a stream from tail to head. Excellent anglers have told me they did best by acting differently. I deny no man's word, but I advise the student to try both ways, and then judge for himself.

In what precise shape artificial flies floating on the water, or just beneath it, present themselves to the fish, I cannot truly tell. They certainly cannot present themselves in the exact living forms of natural insects, but their appearance must be something similar. If I were to guess, I should say that the artificial flies for the common

trout, grayling, and some of the carp tribe, present the appearance of drowning, or drowned natural flies; or of living insects struggling on, or underneath the water. I do not think this surmise fanciful. At any rate, the fly-fisher should endeavour to present his artificial baits to the fish as deceptively as possible, namely, by giving them as natural an appearance as may be. He must cause them to drop lightly on the water, because the natural fly does so; he must cause them to swim down as near the surface as he can, because the natural fly moves upon the surface of the water, and he must impart motion to his flies—a species of fluttering, generally speaking, being the best. All this is comprehended by the expression 'humouring' one's flies.* To do it, the moment your flies alight upon the water, hold up your rod, so that the drop-fly next to it may appear skimming the surface; the other two, if properly proportioned and attached to the casting-line, being ever so little under water. If you allow your upper dropper to be under water, all the flies below that dropper will be sunk too deeply to appear living insects to the fish, and therefore any motion you may give them will be useless. They then can only be taken by the fish

* I am not here alluding to salmon, the flies for which must be 'worked' in the water after a peculiar fashion, to be described hereafter in the chapter on that fish.

for dead flies. When you keep your last dropper on the surface of the water, impart to it the slightest skipping motion, by a tremulous wrist-shake of the rod, and the flies that are just under water will receive the most natural motion you can give them. Never drag your flies straight across the water towards you, and never, unless they be salmon flies, work them against the current. A small trout may, perchance, rise at them when so worked, but seldom or never a large one.

STRIKING AND HOOKING A FISH.— In cricket there are fast and slow bowlers, which is a proof that one way is thought as good, if not better than another. In striking a fish there are fast and slow strikers, each of them, of course, maintaining the superiority of his own method. Well, if there were no difference of opinion, sad would be the monotony of life, the old proverb, '*Quot homines, tot sententiæ*,' having become obsolete. The truth is, there are as many fish missed by striking too rapidly, as by striking too slowly, and a fault either way is bad. I think, however, that he who strikes too quickly labours under a greater disadvantage than he who strikes too slowly. Striking too strongly is a shocking fault, and, as it is generally joined with the defect of striking too quickly, double mischief ensues. You either miss your fish, or whip it out of the water awk-

wardly, or injure your tackle, if the fish be a heavy one. This strong rapid way of striking shows the absence of that delicacy of action and management without which you can never become an accomplished fly-fisher.

The moment you see and then *feel* a rise, you must strike gently from the wrist, by a slight, sharp jerk of it backwards. As a general rule, strike sideways a little, and not straight towards you—to the right most commonly: but you must be guided by a guess as to which way the fish is about to turn on seizing your fly. If you fancy he is going to turn round to his left, you must strike at him neatly towards your right: if you think him on the turn from left to right, strike to your left. By pursuing this plan, you will avoid the probability of chucking the fly clean out of the fish's mouth, or of pricking him only, and you will very likely hook him, perhaps through and through, on either the right or left side of the mouth. A fish very frequently takes your fly under water, and then, feeling the rise, be somewhat quick, yet strike as gently as possible;—quick, lest the fish reject the fly; gentle, for he is already almost hooked. Those who are for striking slowly, act on the notion that fish generally hook themselves, and that the slow stroke is quite sufficient to affix the hook firmly. Fish do sometimes hook themsleves, 'tis true, but it is only by

exception, and not by rule. The fly-fisher of sharp eye and quick hand will often have an advantage over the purblind and the too slow. Dimness of vision and obtuseness of touch mar frequently the benefits of experience, and the young sharp eye and lively hand will successfully compete with the skill of old practitioners in whom the two attributes last mentioned are fading away.

On this part of our subject, I find, on the whole, some excellent advice and remarks in Blaine's 'Encyclopædia of Rural Sports,'* 2nd edit., p. 1178. He says, 'Striking the fish is to the full as important a part of the rod and line management as any. Many strike too slowly, many too quickly, and a correct few strike at the critical moment. The first lose their object, the second often lose both the object and their bait, while the third secure all. When a fish seizes the natural fly, his jaws find no resistance; he consequently keeps them closed until deglutition follows; and thus it is that in natural fly-fishing, it is not found so necessary to be instantaneous in striking; but with the artificial fly, the instant the fish seizes it, he is apt to find the deception, either by its want of taste, or by feeling the point of the hook, or by discovering the unyielding nature of the material

* Published by Messrs. Longman and Co., Paternoster Row, 2nd edit. 1852.

of which it is composed, and he, therefore, as soon as may be, *blows* it out again; and this we constantly observe—when a timid irresolute learner has raised a fish, and hesitates in striking it, fearful of being too quick, or otherwise so paralysed with the sudden attack, that he cannot collect himself for a second or two, and half that time is all that ought to be allowed for the seizure of the bait, and the stroke of the angler. The striking must be instantaneous to be successful; for when it is considered that the impulsive effort which is to fix the hook in the mouth of the fish, which has but that instant closed it on the bait, is first to be taken cognisance of by the angler, and then is to be acted on by him through a solid line of communication of many yards in length, it will be evident that a rapidity of action is required almost equal to the thought that willed it; for, as already observed, unless the stroke reaches the mouth of the fish before he has discovered the deception, it is generally too late. Fortunately for anglers, it is not always so, as the act of ejecting the bait being at the moment of the turning round of fish for their retreat, it happens that they occasionally at the same time hook themselves. It is possible, however, to strike too quickly, and this is frequently done by those who are very ardent, as well as by those who, having been convicted of being too slow, attempt to amend by the

contrary extreme. We have fished with many young hands who have struck the instant they saw a fish rise even, and, consequently, though the bait must have been risen at, the mouth had never received it, or, if it had, it had not time enough to close upon it. Striking a fish should be done with a smart, but not a violent effort. The ardent angler will often strike with such force as to tear away his hold on the fish, or to become minus gut and fly, which snap by the sudden jerk. There is nothing better calculated to cure a young practitioner who strikes too forcibly, than to oblige him to whip for bleak, and to pay forfeit for every one he raises above the surface of the water, receiving forfeit for every one he hooks without raising it into sight. The forcible stroke that wholly misses its object often throws the bait out of the water by the violence of the effort; the moderate stroke that misses will not displace the hook more than a foot or two. The critical fish-stroke is made by a very quick, but very gentle, wrist-motion, by which the hand is canted upwards, being displaced about two inches only. Such a stroke made instantly the fish actually reaches the fly (which is learned by habit), at the moment he has closed his mouth on it and before he has time to throw it out again, is sure to secure the entrance of the hook within the substance of the mouth, without causing great alarm to the

fish by any unnecessary violence; for it cannot have escaped the observant angler, that, when a trout has been harshly tugged in striking, he commences at once a more determined resistance than when the stroke has been less violent, and his alarm less sudden. Neither can we wonder that his efforts should be extreme, when he is made sensible of his situation by a stab and a drag which have half pulled him out of the water.* If such critical nicety be required in striking, it may be here asked, how is it that fish are ever taken by novices? Such a question is reasonable, but may be easily explained. Many eager and hungry fish hook themselves in taking any bait without hesitation. Their seizure of the fly, their closing their mouth on it, and the passing it backwards, are all one instantaneous effort; and, on examination, such fish will be found to have partially gorged the bait. But if the number of fish so taken were arrayed against the number of those lost by a defect in striking, the difference would be as five to one of small fish, and as ten to one of those of mature growth.' This extract contains much of the sound rationale of striking a fish, and should be read and digested carefully.

* The practical philosophy of this sentence, and of the latter part of the previous one, is correct and valuable, and refers also to the danger, whilst playing a fish, of suddenly and violently checking him the instant he is hooked. But of this more anon.

PLAYING A FISH.—This is the pleasantest and most exciting portion of the angler's recreation. Contest and struggle have now begun. If you fail, you lose the object you have been carefully seeking for, and perhaps a line and flies you have cherished for the fatal remembrances attached to them. The fish that had struggled so savagely to do them damage you see with exultation tired to death, or with chagrin you see him swim away with them and sink to the bottom of the current. The blood in this tussle is called from the interior to the surface of the body and sent through the vessels with exhilarating rapidity, and you feel a temporary access of the pleasantest sort of intoxication, viz. that which attacks you at a sporting crisis. Playing a fish is the great crisis of angling, full of hope, full of fear, full of doubt. If he be hooked firmly, if your tackle do not fail you, if he do not get your line and flies foul, if, if, if—ah, the pleasant anxiety implied by those ifs!—you must kill him.

Having hooked a fish, your first business is to determine what may be his size, and whether he be hooked firmly or loosely. You can scarcely be mistaken with respect to size and strength, except when you have hooked a fish foul, that is, outside the mouth, in the fin, or in some other external portion of the body. Then a small fish may be taken for a large and strong one. There

is a general rule for judging how a fish is hooked. If slightly, the fish, on being struck, generally struggles for a few moments on the surface of the water before he darts down into its depths; if firmly hooked, he sinks rapidly and heavily towards the bottom, as if he knew that the only way of getting rid of the barb that holds him was by attrition against stump or stone, or some such thing, at the bottom of the water. You must prevent the slightly-hooked fish from struggling on the surface by lowering the point of your rod, and you must prevent the firmly-hooked fish from sinking to the bottom by elevating its point. These two general rules are easily practised.

I see, *veluti in speculum*, your recently-hooked fish plashing about upon the water, endeavouring to shake out the hook, or at any rate to loosen its hold, which he will do if you allow him too much freedom. Point your rod downwards towards him, and the slackened heaviness of your line will cause him to quit the surface. The moment he does so, raise the point of your rod, so as to feel him well, and keep him in hand, gently or strongly, according to his size and the nature of the locality. If small, allow him just so much play as will deprive him of any power of straining your rod, then wind up, and lift him out of the water. If large, which you will soon find out—you have found it out already, by having measured

him with your eye whilst he was on the water—give him line, tightly though, as he darts through the water—just tightly enough to enable you to check him instantaneously should he near some foul portion of the water. As he rushes from you, keep going with him, holding him gently, 'under buckle,' as they say, and at each pause he makes after every rush, feel him more fully, by presenting towards him the butt-end of your rod. The lower joints of your rod will then incline backwards over your shoulder, and the upper pieces will be bent like the one half of a strained bow, the weight of the fish being thrown on every part of your tackle, and equalised according to its strength, the small and thick pieces having the severest strain upon them. If whilst the rod is in this position you find your fish still vigorous, do not press upon him by holding the butt-end of your rod too much pointed forwards, but, letting it fall into an easy perpendicular position, give a little line and move onward with your fish. The greater the length of line he drags after him through the water, the sooner will he be tired. Still you must take due care that the line be not too long to prevent you from making it taut by a turn or two of your winch at an instant's notice, or by inclining your rod backwards over the shoulder. After you have checked your fish a few times, and you find his struggles wavering to

weakness, wind up and make him show himself on the top of the water. If he bear this languidly, shorten your line to a convenient length, and guide him, not against the water, but with it, to some easy landing spot, if it can be found. Whilst you play a fish, never show yourself to him if you can help it, and request anyone who is with you, or who may be looking on, to keep away from the water until your fish is in the landing-net, or landed by other means.

When a fish, on being struck, darts to the bottom and then away, you may be sure that the hook is firmly fixed, and then you may play him more confidently than when his first struggles are made on the surface of the water. Still be cautious, and do not play too roughly. Rough play is never necessary. It is always dangerous. Checking a fish rudely whilst he is strong, increases his obstinacy and his strength at the very time when they ought not to be exerted. If you strike gently, he will not plunge desperately; and as he will at first scarcely feel the check, you may lead him by manœuvring delicately into some open portion of the water, where you will have 'a clear stage and no favour.' Reduce then his vigour by degrees, and as it wastes away by your repeated checks, and your causing him to haul a long length of wet line after him, hold more tightly; and when you see him turn upon his side, bring his opening

mouth to such contact with the surface of the water that more of that element will enter than can pass out by the gills. These safety-valves having lost their natural action, something very like suffocation or asphyxia by drowning will ensue. Your victory is then complete.

When a fish is hooked foul, that is, on the outside of the mouth, he has his head free, and you will find great difficulty in tiring him down. A small fish so hooked will show more strength than a large one fairly hooked. You have not got the bit in his mouth, but are forced to manage him with, as it were, a halter round his head. Give him as much line as you can, bearing upon him as heavily as the strength of your tackle will with safety admit, and having no fear that your hook will tear away, as it often does from the brittle fibrous parts of the interior of the mouth. Be prepared for several swift rushes of a fish hooked foully, and do not bring him near you until you have softened down his struggles. Use much patience, and should your line, as it not unfrequently does, get coiled round his body, hold hard and shorten line, for you will now have little more than his weight to contend with, the power of his fins being impeded. I repeat again, eschew violence. Always play with a light hand, making its strength gradually felt in the ratio of the decline of that of your fish, and so follow the killing rule in playing

a fish. In doing so, never seize your line in either hand to shorten it, unless (and the occasion will not often occur) you cannot wind up rapidly enough to prevent the fish from darting into some dangerous place. Playing a fish with the line in your hand, without having recourse to your rod, is the very worst habit you can adopt. I should say, avoid it altogether, which you will be able to do if you fish with a perfect winch. The best sort of winch is a carefully London-made multiplier. Although this is my opinion, I do not act by it, but use a best London check-winch.

LANDING A FISH.—A few lines will describe this final operation. In performing it, mark, let your person, and all that pertains to it, be as nearly invisible to the fish as may be. Select the clearest spot you can for landing. If you have anyone with you to handle the landing-net, let him keep himself before the fish, sink his net in the water, and as you gently bring the fish towards it, let him advance it underneath the struggler, and when right under him, lift it up without a jerk, and with an easy motion, well-timed and accurate, after the fish is withinside the hoop. Never thrust the net at the fish whilst he is in voluntary motion, or touch him with it until he is fairly inside it. Where there is no bank, but a low shelving strand, you may land your fish on it

without the aid of the net; but I advise you to do so rarely, as hauling the fish ashore over gravel or sand will strain your rod prejudicially, and very often injure your flies. Use the net upon all occasions, unless some casualty occurs to render it exceedingly inconvenient. When you have no one to assist you in landing a fish, and the banks are high, tire your fish out completely, and bring him in close under the bank. If you cannot reach him whilst holding your rod in either hand, wind up tightly, and put the stop on your winch. Then stick the spear or spike in the ground, your rod inclining backwards from the river, and sinking your net before the fish, bring it headwise under him, and lift him out. If you frighten your exhausted fish by clumsy use of the net, showing it to him, touching him with it or making a noise in the water with it, you may awaken in him a death-flurry, fatal to some portion of your tackle and to your success. The generality of landing-nets are too small. On an average, they should be by one-half as large every way as the largest that are commonly sold in the shops. The thread the meshes are made of should be stained of a water colour; and if frequent immersion in water should wash the dye out, they should be dyed again. I have seen many a fish break away through the dreadful vigour with which he has been inspired by the sight of a net bleached

almost white by constant exposure to sun and water.

In landing large fish, salmon, very heavy trout and pike, you may use the gaff, that is, a large, well-tempered, sharp, deeply-barbed hook fastened to the end of a proper piece of wood. The best place to insert your gaff-hook is beneath the gills of a fish in his gasping moments. The next best place is above one of the pectoral fins, by a sharp stroke. When you intend to gaff your fish in the breast or shoulder, put the gaff outside and beneath him, the point upwards, and if possible towards you. Then strike sufficiently strong to make the barb penetrate far beyond the skin, and then, if you cannot land him, he must be very strong, or you must be very weak, or something for angling purposes much worse. Remember this caution: never fly-fish without a landing-net or gaff.

In playing and landing a fish, do so with your winch and the rings of your rod pointing upwards. In England, people throw the line, strike, play, and land a fish with winch and rings under the rod. They do wrong. When the rings point to the water as you play a fish, there is too much strain upon them; taking it off the rod, wearing out the line by friction against the rings, and not letting it run freely through them, as it would along the rod if they pointed upwards. In casting

only is it more convenient that the winch should be beneath the rod. Appearance and convenience are the only advantages of that position.

The following observations of Mr. Ronalds should be attended to:—'When a fish has just risen at a natural object, it is well for the fisherman to try to throw into the curl occasioned by the rise, and left as a mark for him; but should the undulations have nearly died away before he can throw to the spot, then he should throw, as nearly as he can judge, a yard or two above it, and allow the flies to float down to the supposed place of the fish: if a rise do not occur, it may be concluded that the fish has removed without seeing the flies; he may then try a yard or two on each side of the place where the curl appeared, when he may probably have a rise, and may possibly hook the fish, provided he has the knack of striking, which knack, like all others, is acquired only by practice: it must be done by a very sudden, but not a very strong stroke—a twitch of the wrist. Having hooked him, the rod should be carefully retained in that position which will allow its greatest pliability to be exerted. For beginners to do this, it may be advisable that they should get it up over the shoulder, and present the butt-end towards the fish. A gentle pull must now be kept upon the fish, and he should be led down the stream rather than up, making use of the reel as

occasion may require to shorten the line. But if he run in towards the bank upon which the fisherman stands, it will be necessary for him to approach the edge of the water as nearly as possible, holding the rod with an outstretched arm in almost an horizontal position; and if the reel be of the usual bad construction, it will be also necessary to pull in the line as quickly as possible with the left hand; this may prevent the fish from reaching his harbour: if it should not, he will most likely twist the gut round roots, &c., and break away. To kill him, the nose must be kept up as much as possible; and should he be very importunate and resolute, he may be lent a little more line now and then, but it must be promptly retaken with tremendous interest, and got up as short as possible. After various fruitless efforts to escape, which exhaust his strength, the nose may be got fairly out of the water, the fish towed gently to the side, and the landing-net passed under him. From the time of hooking the fish, if a large one, to the time of landing, care must be had that the line shall not be touched by the hand, excepting under the just-mentioned circumstances: all should depend upon the pliability of the rod. In case a landing-net should not be at hand, the reel may be stopped from running back, the rod stuck up in the ground by the spike, and, both hands being disengaged, the fisherman may

stoop down and grasp the fish firmly behind the gills. The principal differences between trout and grayling fishing are, that the latter requires a more delicate hand, a quicker eye, and the use of smaller flies upon the finest gut. The strike must be made on the instant of the rise. The fish may be sometimes seen, if he be of a good size and the water bright, a few inches before he gets up to the fly, and the fisherman must strike immediately that he does so, for his motion at the instant of seizure is too rapid to be visible. When the fisherman comes upon a favourable place for grayling, he should recollect that this fish does not follow the fly as the trout does, and should therefore allow it to float down the stream in a natural way; for should a grayling be waiting for it, and it is drawn away, "the fish will be disappointed of that which it was the fisherman's intention to entertain him with." It must also be remarked here that the mouth of the grayling is much more tender than that of the trout, therefore much more care in landing is required; and a landing-net is generally indispensable, especially when the banks are high, for the mouth will seldom bear his weight out of the water.'

This chapter is a long and important one. Unless you carry into practice its precepts, you will never become a good angler. It teaches the great branches of the art—throwing a line, hook-

ing, playing, and landing a fish. When you understand them, nearly all you require to know is, the best sort of tackle and the best baits for the several fishing months.

When I come to the chapter on Salmon, I shall accurately describe the mode of throwing the fly for him—how to humour the flies he takes, strike, hook, and play him. My instructions, hitherto, principally relate to the capture of salmonidæ.

CHAPTER III.

ON ARTIFICIAL FLIES.

Of late years a new doctrine—in my opinion a totally wrong one—has been sent forth about artificial flies. Some Scotch writers were the first promulgators of it, and they have carried it to ridiculous extravagance. They positively maintain that there is no likeness between the natural fly and the artificial one, and that when natural flies are on the water the angler will be more successful by using artificial flies as widely different from them in shape, colour, &c. as may be. A nondescript artificial fly will succeed better, they say, than a bad resemblance, and every attempt at imitation, in their opinion, produces at the best but a bad resemblance. These angling heretics contend that fish rising at a natural fly immediately detect, by comparison of course, the bad imitation, and refuse to rise at it; whereas they will rise at some outlandish artificial that differs, as much as chalk does from Cheshire cheese, from the living fly on the water. They say, that when they go fly-fishing they catch some of those flies that are on the water, and fish with artificial flies totally different from them,

and invariably meet with more success than if they used so-called, as they name them, imitations. The majority of mankind are mad on one subject or another. Perhaps the majority of animals are similarly so. I deem these fly-fishers mad, and think them successful because they meet with mad fish, more readily taken with fantastic flies than with naturally coloured and shaped ones. That is the only way I can account for the former's heterodoxy.

My friends, do not mind what these cracked sectarians say. They are learned philosophers, writing articles on 'Angling' in ponderous encyclopædias, from visionary data, but we are lowly scatterers of information gathered by the water-side. We grant that there is very great difficulty in imitating, by means of feathers, fur, wool, &c., the water-insects fish feed upon; but we maintain that a fair deceptive imitation can be made, and that it is beyond all comparison more attractive to fish than no imitation at all. We contend that the less imperfect an imitation, the more attractive will it be found in fishing. Let any impartial judge examine the artificial flies made by Mr. Blacker, of 54 Dean Street, Soho, and then say whether his imitations are fair ones or not.

We said that philosophers—naturalists with barnacles on nose—reading insect nature through

the glass-cases of museums, find, they assert, no likeness whatsoever between the natural fly and what, to the vulgar, appears the best artificial imitation ever dressed. The microscope, they cry, proves this. An unjaundiced human eye proves quite another thing.

The eyes of birds are, I believe, pretty good. At any rate, they can see at an immense distance. The philosophers will perhaps allow that the eyes of the feathered tribes are as difficult to be deceived as those of the finny tribes. I should say more so, because their eyes are sharpened by something very like an intelligent brain placed close by them. Well, birds are continually deceived by the artificial fly of the angler. Swallows, martins, swifts, goldfinches, have darted at artificial flies as the wind blew them about on the line, and have hooked themselves and been taken. About six years ago, a dunghill cock seized an artificial May-fly, attached to an angler's rod resting outside an inn at Buxton, and was hooked. If birds take these imitations of water-flies, not being their natural or best food, how can it be argued that fish will not take them?

The philosophers say, attempts at imitation are of no avail, for salmon and some of the larger salmonidæ rise eagerly at artificial flies that resemble nothing living on earth, in air, or water. That is true, and as yet unaccountable. It is

perfectly abnormal, as are many matters in the natural history of salmon, and of the sea-visiting salmonidæ. But dress those gaudy salmon flies, or lake trout flies, as small as you like, and the common trout and grayling will not rise at them; neither will dace, chub, nor roach; and yet they will rise freely at imitations of river-flies, caterpillars, house-flies, and flies that are bred upon trees, amongst gravel, sand, and plants. I say they will rise at these imitations, and rise at them in preference to any other when the natural insect they are designed to represent is on the water or in season.

Will the philosophers answer this question? How is it that neither the common river-trout nor grayling will, during the spring, autumn, or winter months, rise at an imitation of the May-fly, their especial favourite during a part of May and June? If trout, or grayling, or chub would prefer nondescripts to the imitations of flies on the water, no more attractive nondescript could be presented to them than the imitation of the handsome May-fly when out of season. But they never take it, except during the 'drake season,' or a little before or a little after it. In that season, viz. when the May-fly (*Ephemera vulgata*) or green drake is out upon the waters, fish will prefer an imitation of it to an imitation of any other fly, except indeed of mornings or evenings,

when other natural flies are out, and the May-fly is not. I will here grant, and doing so will strengthen my argument, that it is impossible to imitate well the delicate and beautiful May-fly. Still, fish will generally sooner take the bad imitation, I may say the worst imitation of it, than the best of any other fly not in season.

The artificial May-fly is not a killing bait except under peculiar circumstances, and when thrown upon the water amongst the real flies, fish will generally prefer the latter. Use any other artificial fly, as unlike the May-fly as possible, and you will prove the theory of the philosophers to be erroneous, for fish will not rise at these unlike flies at all. They will rise, however, at a bad imitation of the May-fly, particularly under circumstances that tend to improve that imitation. When the weather is gloomy and windy during the 'drake season,' and the deep waters are ruffled, and few natural May-flies are out, imitations of them will kill well. I account for it thus. During such weather the imperfections of the artificial fly are to a great measure hidden. The water is disturbed and not very clear, the plash caused by the falling line and large imitation-flies is not very great, and the appearance of the artificial fly then is not unlike that of a natural one, either drowned or drowning, or struggling against the effects of gusty weather.

On a fine clear day, in pools at least, the artificial May-fly will not succeed; and still less any of the philosophers' outlandish flies, because of the impossibility of imitating the motions of the natural May-fly, observed plainly and constantly by the fish through the clear and tranquil water sending up myriads of the beautiful living insect. When it first comes to the surface of the water, it has to shake off the case that confines its wings, to dry them, to gain a little strength in the new atmosphere it inherits before it can fly away to enjoy a few hours' existence. Whilst making these incipient preparations for ephemeral enjoyment, it is seen by the fish, and frequently checked at the outset of its career. The fly-maker cannot imitate these acts of the fly, so apparent to fish in sunny weather, and hence the little success attending the artificial green drake at such a time.

The above famous fly, so common in the rivers of the midland, the western, and the southern counties of England, is not so common in the north, is rare and even unknown in many of the best rivers of Scotland, Ireland, and Wales. It would be in vain to fish with it there, which proves again that the common trout, at any rate, will not rise at nondescript things, which instinct informs them bear no resemblance to their natural food. Gnats and midges are to be found everywhere throughout the kingdom, especially in

summer, and hence the different sorts of dun artificials, intended to be imitations of those insects, are good general flies in every part of the empire. Artificial palmers, which are imitations of the caterpillars of different sizes and colours common to the rivers of the British Isles, are good baits, perhaps the best general ones, except in those months when the living caterpillar does not exist.

After what I have now written, it will be apparent to every one that I am in favour of close imitation. I have tried the nondescript fly, and found it fail—tried it for two seasons on the Thames without a shadow of success. Having found how difficult it was to kill large Thames trout with the ordinary artificial flies, I had some nondescript ones dressed as attractively as imagination, guessing at probabilities, could make them. During the seasons 1846-7 I used them with the utmost perseverance, for I wanted to test the discovery of the philosophers; but the Thames trout seemed determined not to afford me a single excuse for becoming a convert to the new doctrine —they would have nothing to do with my new-fangled flies. In previous years I had killed Thames trout with artificial flies, and I had made others kill them with flies similar to those I had used, viz. large red, black, brown, and furnace hackles, and a very large imitation of the sand-

fly. Flies like these were successful in the year 1846, and I saw a trout weighing upwards of 10 lbs. that had been taken with a large brown palmer at Sunbury. My gaudy flies were of no use. I had my faith slightly shaken one day by seeing a Thames trout taken with a bad imitation of the May-fly late in July. That fly was a nondescript then. A day or two afterwards I saw several natural flies on the Thames; they were large, in shape like the May-fly, but the body was of a lighter colour, and the wings not so transparent as those of that insect. In fact, the bad imitation of the May-fly that had been taken by the Thames trout was not unlike the living fly that was then out upon the waters of that river.

If fish preferred nondescript artificial flies, we might reasonably conclude they would prefer nondescript natural fish, mice, frogs, beetles, grasshoppers, and so forth. They do not, however; and artificial fish-baits are made as like as possible to natural minnows, bleak, gudgeons, dace, roach, and small trout. Perhaps the philosophers would contend that an artificial imitation of the red mullet, or of some other fish that would be a nondescript to salmonidæ or pike, would be taken by them with greater avidity than the bad imitation of the fish they feed upon, because—and that is the philosophers' reason—they can distinguish

the badly-imitated artificial minnow or gudgeon from the real ones they constantly see and feed upon, and will therefore seize by preference something concerning which their instinct can draw no comparison.

Before I conclude this chapter, I think it but fair to the philosophers to give a summary of their theory. It is the opinion of governments and of other bodies of men, that it is dangerous to publish false theories. I do not think so. Falsehood cannot stand against truth in the open day. It may creep on in private, but its publication draws after it its refutation, and the establishment of true knowledge into the bargain. There is great philosophy in 'O that mine enemy had written a book!' A modern writer ('The Angler's Souvenir') says: 'Most books on fly-fishing contain long lists of flies, named after the particular insect of which it is *pretended* they are an imitation, but to which they bear so very distant a resemblance, that the most skilful entomologist would be completely at fault in assigning the species. Such lists, for the most part, only confuse the beginner, and give him wrong ideas of the *rationale* of the art, and are not of the least use to the proficient. The greatest number of trout, as is well known to every practical angler,*

* This I pronounce one of the most barefaced misrepresentations ever uttered.

is caught with flies which are *the least like* any which frequent the water. The imitation of the yellow May-fly, which is so common on many streams towards the latter end of May and the beginning of June, is scarcely worth admitting into the angler's book; for when the natural fly is most abundant, and teachers say the imitation is to be used, it is generally good for nothing, as the trout very seldom take it when the real fly is on the water; but, in direct opposition to the unfounded theory, prefer a hackle, black, red, or brown, or a dark-coloured fly. Wherever fly-fishing is practised—in England, Scotland, Ireland, Wales, France, Germany, and America,—it has been ascertained, by experience, that the best flies are not those which are dressed professedly in imitation of any particular insect. Red, black, and brown hackles, and flies with wings of the bittern's, mallard's, partridge's, woodcock's, grouse's, martin's, or blue hen's feathers, with dubbing of brown, yellow, or orange, occasionally blended, and hackles, red, brown, or black under the wings, are the most useful flies that an angler can use on any stream in daylight all the year through.'

The above passage contains a summary of the doctrine preached by the new piscatorial philosophers. They are lazy theoretical anglers, and would be glad if there were only three general

killing artificial flies, that they might not have the trouble of changing them, or observing which flies are in season. There is one truth, and one only, in the above extract: viz., that which says fish will freqently, in the drake season, 'prefer a hackle, black, red, or brown, or a dark-coloured fly,' to the imitation of the May-fly. That truth, however, does not strengthen the philosophers' reasoning. Quite the contrary. I have already explained why the artificial green drake is not generally a successful fly. It is the most difficult of all flies to be imitated well. Other artificial flies are better imitations of other real flies, and therefore fish prefer them to the bad imitations of the drake. Another reason why they take 'a black, red, brown, or dark-coloured fly,' is that fish, like man, have a versatile appetite. What will the philosophers answer, when I tell them that trout at certain times of the drake season will prefer a small artificial fly to the fine fat living fly? Unaccountable! perchance they will say. Not a whit of it. I have seen fish so much gorged and surfeited with the live May-fly, that they would no longer rise at it; whilst they would rise rapidly, particularly towards evening, at an imitation of the common house-fly. What do I conclude from this? Not, certainly, that the artificial fly is a better bait than the natural fly at all times, but that it is sometimes, when palled ap-

petite, or some other casualty, makes it so. The philosophers recommend the use of only a few flies. They recommend, however, the most general ones; that is, those whose appearance on the water is not limited to a few days in a particular month—in fact, flies which are to be found alive in one shape or other during spring, summer, and autumn. After all, they do not in reality recommend nondescripts, and are particularly minute in describing how their imitations should be dressed. If they consider, as they say they do, imitation useless, why are they so precise about appearance, about certain sorts of feathers, fur, &c.? I grant them that some of the flies they name are the best general ones we know of, and that they will kill, when trout are rising at very different sorts of flies, better than bad imitations of those flies which are in season. But they kill on a principle totally different from the philosophers' doctrine—viz., because they are like some natural fly, whilst the bad imitation is not like any fly at all.

In the month of March, when the weather was open, and the water in fly-fishing tune, I have seen thousands of a particular species of fly sailing with wings erect upon the surface of the water. The fly I mean is diversely called the March-brown, brown drake, cob-fly, and grey caughlan. It is easier to make an imitation of this fly than

of the May-fly, and therefore such imitation will kill when a nondescript, or a fly as unlike as possible the March-brown, will not. Practical anglers know this so well, that when the March-brown is on the waters, they fish with three imitations of it of different sizes attached to their foot-line at one and the same time. I have known a good imitation of the March-brown thrown upon the water amongst the live insects and eagerly taken, I may say in preference to the natural fly. Did the fish confound it with the natural fly, or rise at it because it was a nondescript? That is the question. I answer without hesitation, they confounded the artificial with the natural fly. At the same time, I maintain that if fish did not in general make the mistake of confounding the artificial with the natural fly, the fly-fisher's art would be a bungle from beginning to end, and should be called a comedy of errors, rather than an art. Of the March-brown, Mr. Bainbridge in his 'Fly-Fisher's Guide,'—and Christopher North pronounces that gentleman to have been one of the most accomplished anglers that ever crossed the Tweed,—says: 'This very excellent fly very generally appears about the middle of March, and is strongly recommended as a good killer from eleven until three o'clock. Large numbers of these beautiful insects sail down the streams in succession, and invite the trout to action. Their

wings are upright on the body, and whilst they are on the water, it is almost in vain to attempt the use of any other fly. Therefore, as they vary in the shade of their body, it is advised to use three of this form, but of different sizes and colours, at the same time, which will ensure success to the angler.' Mr. Bainbridge is an orthodox authority acknowledged by every practical angler. He is perfectly right in advising the use of differently coloured March-browns, because the hue of the male differs from that of the female.

Why are duns in general use? Because they are imitations of the ephemera family, the most common and most killing water insects. It is not because they are nondescripts; and he who has the best dun hackles of various hues, dressed in the neatest way over bodies varying in colour, as the natural flies do, according, I am justified in saying, to wind and weather, will meet with the surest success. For my own part, I seldom fly-fish for trout or grayling without some sort of dun on my line, and I am guided by the shape and colour of the dun-fly on the water. Some species or other of dun-fly is on the water throughout the fly-fishing season.

I find in 'The Encyclopædia of Rural Sports,' some passages so full of sound sense on the subject of natural and artificial flies, that I cannot resist

the temptation of borrowing them. They deserve attentive perusal, and their author, the late Mr. Delaborde P. Blaine, was famed for his knowledge of natural history and his practically scientific attainments. He says: 'The small ephemeral flies, called duns in the angler's vocabulary, are very important to his practice: the entomological outline will show that they are very numerous also. A few, as the May-fly, the March-brown, and great whirling dun, are large; most of the remainder are very small, but yet are so attractive to fish, particularly to the trout, that in the counties which are favourable to their propagation and increase, they form the sheet-anchor of the trout fly-fisher's practice. It would be difficult in the extreme for the most attentive, either angler or naturalist, to designate or characterise them individually, from their numbers and varieties. The short period of their existence, limited to a few days at most, and in some to a few hours only, renders a constant succession necessary to fill up the void. They have been grouped under the comprehensive term of *duns*, which has become so conventional, that it would be extremely difficult to disjoin them; although, whoever examines the yellow and the orange varieties, which equally pass under the same name, will find they have little of a dun hue about them. There are, however, extreme exceptions, for it is very certain

that in most other varieties there is a predominating *bluish grey* tinge. Were it not for the successional changes which take place in their tribes, they might perhaps be conveniently and appropriately divided into brown, red, and yellow ephemeræ; of each of these the modifications are almost infinite.

'Of the brown ephemeræ, or duns, some are very dark, approaching a claret colour, which is best imitated by a dark blue, mixed with a reddish brown. These are usually found in the earliest part of the fly-fishing season, and to them usually succeed a mixture of red and coloured varieties, followed by a new series, which are gradually softened into the different hues of dun, orange, or yellowish ash. Of the true dun ephemeral flies the variety is equally endless, from the early blue dun, which may be considered as the type, through all the gradations of iron-blue, violet-blue, ashy grey, and pale-blue. The yellow ephemeræ or duns are still more difficult to define, as there are few even of the former that do not exhibit a yellowish intermixing tinge about some parts of their little frames. Often it appears in exquisite orange bars over the abdomen, but they derive their character from the yellow being more strictly predominant. In some may be perceived a slight mixture of bright yellow with a larger of ashy dun. When both colours are

bright, an elegant tint of green is produced In others again, as the little yellow May-fly, bright yellow prevails without mixture. Of all these the series are wonderfully varied, some having orange bodies and dun wings, while in others the orange is shed over the wings, and the dun body serves as a foil to them.

'The successional change of colour which takes place in the series of ephemeræ, as they advance from the spring to summer, and as they retrograde again towards autumn, has not escaped the notice of anglers; and we find in most of the directions for fly-dressing the subject practically glanced at, but no systematic arrangement of the series has been attempted. All that has been hitherto noted is, that in the early spring months the predominating colour of the winged insects which are seen near the water is almost black. The early duns are of a very dark olive, whose occasional varieties, as the season advances, assume a lighter brown, while others shine in a heavy blue; until at length yellow, orange, or cinnamon decks the former, and pale blue the latter, intermixed with others apparently compounded between these. With one exception, that of the blue-blow, the ephemeræ appear invariably to become of a lighter hue as warmth and light increase; and we see the summer duns dressed in bright yellow, orange, red, and cinnamon. From

these fresh relays appear, and as the season advances these again assume the gradatory shades of red, brown, violet, and claret colour.

'The daily appearance of the ephemeræ, as well as the colours they shine in, is also under the influence of times and seasons. Excess of cold, as well as of heat, is unfavourable to them: thus in the depths of winter they are not seen at all; in spring they do not show themselves until towards noon; while in the meridian splendour of the summer days, they (to avoid heat) come out in the mornings and evenings principally, and are hardly seen at midday. A kind and provident nature so suits the supply of her creatures, that her economy may never be disturbed. If these ephemeral flies appeared all of them at one time, the air would be vitiated, and the birds and the fishes which live on them would be glutted to satiety and fatal repletion at one time, and at another might want the necessary support. But we see species after species arrive in succession to fill up the breaks made by the last; and that no inconsiderable interruption may occur by variation in temperature, and changes in weather, some are destined to appear when cold and storms prevail, while others require cloudless skies and genial warmth to draw them from their seclusion. The whirling dun thus frolics in the gale, the red spinner dances in the sunny beam, and the blue-

blow braves the chilling day. *The observant angler makes a practical use of all this, and frames his mimic art accordingly.*'

The intelligent reader will find, in the above extract, hints that will serve as a safe clue to much interesting and useful information. He will be inclined to think that a partial knowledge at least of entomology will be necessary to make him a perfect fly-fisher. He will find that each month produces its particular flies, with some that are common to most months and waters, and with imitations of these he will angle. He will find that the first spring flies are generally olive-coloured, reddish, and brown; that as spring advances, various duns, not as yet very light ones, come on, together with larger flies of mottled wings, and yellow and dark bodies. In the last spring month appear such flies as the little and large May-fly, precursors of more gaudy ones for summer-tide; and in early autumn he will find gnats, transparent duns, cinnamon-coloured flies, ant-flies, and, as the season declines, the spring flies, olive and green, reappear. This information is important.

In dressing flies, precise colour is of more importance than exact shape. If the colour of your materials be bad, it is in vain for you to be correct in shape. You must, therefore, ascertain the colours of the living flies, and match them by

artificial means. The fly-fisher who is the best judge of colour has an immense advantage over the bad colourist. When by-and-by I give my list of flies, I shall be most particular in stating the coloured materials of which they are to be made. The wings and feet of flies are almost always made of feathers—the bodies of fur, mohair, silk, wool, &c.; and the fly-dresser cannot be too particular in the quality and colour of those materials. The most general feather for wings is the wing-feather of the starling, its longest or inner fibres to be used; the most general feather for legs, and sometimes for body, is a cock's hackle-feather; and the most general substance for dubbing the body is mohair: it is the best also. The hackle-feather is taken from the back part of the cock's neck, and that part of the bird affords feathers of various sizes and various hues. Mohair can be dyed any colour; it resists water well, does not cake in it, shows its colour effectually, and mixes well with fur and silk. It is a most valuable material. The hackles of cocks are of different colours. The most valuable are duns, and they are the most difficult to be obtained in perfection. The best dun feathers are to be found in Wales and the midland counties. Hackles are to be got from a variety of other birds—from the grouse, the green and golden plover, the partridge, bittern, woodcock, snipe, wren, tomtit, &c.; and

feathers for wings from a still greater variety of birds. The same feather that will make the wings will frequently answer best for the legs, shoulders, and tail of the fly. All that is required is judgment in the selection, and this can only be obtained by comparison.

Artificial flies are now certainly very neatly made — infinitely better, every judge acknowledges, than they used to be a few years ago. My own ephemeral writings in *Bell's Life in London* have (I have heard many say) tended much to this advance towards perfection; and so have Mr. Ronalds's 'Fly-fisher's Entomology,' and Mr. Blacker's 'Art of Fly-making'* and, lastly, so have the two first editions of this Handbook.

Still we are not perfect in fly-making, nor shall we be so until some more painstaking fly-dresser than we now have gets a collection of natural flies, examines them by means of the microscope, ascertains their precise colours and anatomy, and then by microscopic examination again of feathers, mohair, fur, and so forth, arrives at the exact imitative materials. When that is done, fly-fishing will be reduced to a sporting science exceedingly amusing and instructive. The journeyman fly-

* I earnestly recommend this valuable little work to all who wish to become perfect fly-making adepts. It is sold by the author, 54 Dean Street, Soho, and by the Messrs. Longman and Co., Paternoster Row.

dresser at present is merely acquainted with the mechanical part of the art, dresses from artificial specimens, knows little or nothing of the natural insect, and is rarely a good angler. He is a copyist of a copy, and does not know whether that which he has to copy is a good likeness of the living subject or not. A fishing-tackle maker, to be a great and good one, should have an insect museum,—the flies, caterpillars, and beetles, fish feed on, preserved in cases, named and numbered, and the season of each noted. From these models he should dress his flies: and when he finds he has succeeded in framing perfect copies, he should note down the materials he has used in their formation, and then he will have sure guides for the fly-dressers he employs. He should pay those persons well, and engage none who do not deserve high pay; and should charge his customers a remunerative price. The generality of flies are sold at too low a price. They cannot be made well at a low price. They must be defective in every way, and hence the purchaser meets with little success, much loss of time and of money, for cheap things are always the most expensive in the end. There have been persons advertising to make, at 1*s.* 6*d.* a dozen, the flies I recommend. At that price the hooks and gut must be of inferior quality, the workmanship 'scamped,' so that the hooks will draw after a

tussle or two with a good fish. My flies cannot be well dressed for less than double the above price.

In trout and grayling fishing I would always have three flies on my casting-line at the same time. The tail-fly or stretcher should be the best, and when possible the largest; the first dropper, a good general fly, and the second dropper, or third fly, a most attractive hackle. The stretcher should be an imitation of the fly in season. It is the fly which ought to fall first on the water; if you cast well, it floats most naturally in it, and a fish hooked by it is more easily played and killed than with either of the droppers. When you find that fish are rising at one sort of fly only—that your stretcher, or one or other of your droppers, is the sole attraction, remove your useless flies, and make your sole attraction a triple one. You will often find several sorts of natural flies on the water simultaneously: observe which of them the fish are feeding upon, and produce your imitations if you have them in your book. If not, make them if you can.

It is a fact that hackles and palmers are the most killing flies on many of the rivers in England, whilst on others winged flies are the best. Hackles, except a very few, do not kill well in Ireland. Winged flies are the best there. Palmers are not good flies, generally speaking, in Ireland;

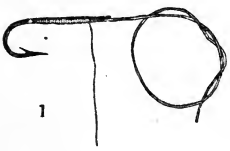
whilst in some parts of England they are the best general baits. In our northern streams, which are exposed to cold winds, and not well sheltered with trees, bushes, and plants, hackles and small flies are the most killing. In well-wooded rivers, in our midland, western, and southern counties, winged flies are the most attractive, and the palmer kills better than the simple hackle. The natural flies are bred larger there, and with more seasonable regularity. We have one consolation, however, that the good general fly extends its attractive qualities to all aquatic coquettes, be they English, Irish, Scotch, or Welsh salmon or salmonidæ. Experience alone, whether it be your own experience or that of others, can make you intimately acquainted with the great local favourites.

CHAPTER IV.

FLY-DRESSING.

THERE are hundreds of things that cannot be taught easily by means of pen and ink, but which the tongue and hand, reciprocally illustrating each other, can inculcate with very little difficulty. Fly-dressing or fly-making is one of those things. I can scarcely teach it by writing; in a few hours I could explain the whole matter with tongue and hand. However, I must on paper do the best I can; and the artist in wood having lent me some assistance, I fancy I can make a short lecture on fly-making practically comprehensible.

The woodcut on the left-hand side of this page, and marked 1, represents what fly-dressers term 'the gut armed,' that is, plainly speaking, the gut and hook whipped on, or tied together. It is the first step in fly-dressing, and is thus performed:—You take the hook by the bent part, or bend, between the tips of the fore finger and thumb of the left hand; the back part of the hook being



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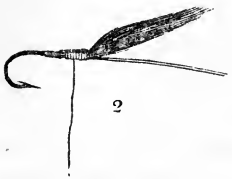
upwards, and the barbed part downwards, as represented in the little plate before you. You next take a strand of fine silk, neatly waxed, and about a foot or more in length, and you whip it two or three times firmly round the hook at that part of it nearest your finger-nails, or, generally speaking, that part of the shank which is opposite to the pointed and barbed part of the hook. You make the two or three whips in the direction of the end of the shank of the hook, that is, towards your right. Next you take a link of gut coiled for convenience' sake, as you see in the cut; and having softened between your lips, and drawn between your teeth to soften and flatten it, a small portion of the freed end of the gut, you place that end against the last whip that you have made with your silk, and you wind your silk over gut and hook up to the end of the shank, or up to that part of it from which you see in the cut a portion of the silk hanging. Wind your silk firmly, and in regular twists, and one winding will be sufficient to fasten safely your hook and gut together. If you only wind your silk as far as you see it wound on the hook before you, a very small portion of the end of the shank will be bare, and leave more room for you to make the head of the fly, and fasten off there with greater delicacy. On the other hand, if you wind your waxed silk to the end of the

shank, and back again to the spot at which you see the silk depending, you will make a firmer foundation for the setting on of the wings, the time for performing which operation is now arrived.

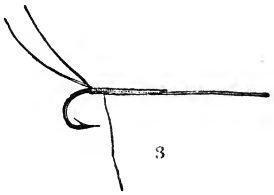
Here you see the wings merely whipped on; the butts of the fibres fastened down by being whipped over in the direction of the bend of the hook, and the tips of the fibres pointing away to the right.



You ask, where do you get these fibres, and what are they? Simply a small parcel of them, clipped or torn from the stem of some appropriate feather, generally from that of the wing of a small bird, the most common one being the starling. These fibres are generally taken from that side of the feather lying on the inner part of the wing. They are longer, of a lighter colour, and more transparent than the fibres lying on the pinion side of the wing, because the latter are more exposed to atmospheric action. Having cut or stripped your fibres in sufficient quantities to form two wings, and having made a little bundle of them, their butt-ends lying evenly, and not projecting the one beyond the other, fasten the butt-ends down on the top of the back of the hook, at the spot indicated in the wood-

cut. Three firm whips of your silk will be sufficient to fasten them. Then cut away any of the butt-end fibres that may remain uncovered by the silk. Wind your silk down towards the bend of your hook, stopping at the spot at which you first began the arming of your gut, as described in Fig. 1. You are now ready for the placing on of the tail.

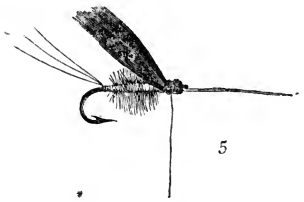
Here you see it placed on and whipped over with your silk. The tail is generally made of two fibres of a feather, or of two hairs. In tying on the tail, use three fibres or three hairs, lest one should drop off or be in any way injured whilst you are dressing the other parts of the fly; and afterwards, if you have succeeded in fastening on three, you may cut away the worst of them, and allow only two to remain—the generality of angling flies having but two tails, and a few only being pachas of three. These illustrious insects have their appendages particularised in our list of killing-flies. You have now, attentive learner, performed three things,—armed your gut, fastened on your fibres for wings, and fixed your tail. You next come to making the body, and attaching it round your hook.



Here are hook and gut with a body on without wing and tail. That body is made of what is called dubbing; and dubbing is made of fur, hair, mohair, silk, and a few other substances. You spin a little of either (the quantity to be determined by the size of the hook you use, the size of the fly determining the size of the hook) on your silk, by twirling both dubbing and silk between the fore finger and thumb of your right hand, and you wind the whole on your hook, beginning at the tail, and working up to the setting on of the wings. The dubbing must be wound more sparingly on the silk near the tail, and increase upwards, being most plentiful close under the wings. You will perceive that you begin winding the hook upon the dubbing after you have tied on the tail, just where you see the silk hanging from the hook in Fig. 3, and you cease winding on when you come to the wings. It may be here necessary to warn you that in some instances you place the tail and dubbing on first, before you whip on the wing-fibres. These instances are, when you are dressing very small flies with perfectly upright wings. Then you place on the wings last, with the butts of the fibres pointing towards the end of the shank, and the top ends towards the bend of the hook. In

fact, such wings, for such flies, are placed on in a way quite the reverse from that shown in Fig. 2.

This next cut represents an ordinary winged fly, one of the easiest of the sort you can make, in nearly a finished state. You have only to cut off the silk which is left hanging at the spot at which you have finished the fly. You wonder, perhaps, at the position of the wings, pointing very differently from the way you left them when you first tied them on as directed in the explanation accompanying Fig. 2. I will explain to you the different operations that have caused this change of position. When you wind up your dubbing to the setting-on of the wings, you fasten your dubbing there, and pinch off all of it that is superfluous. You fasten your silk with a slip-knot. You then take the wing-fibres between the forefinger and thumb of your left hand, and reverse them, bending them down over the back of the body of your fly, with the tops of the fibres pointing towards the bend of your hook. Whilst so bent and held down, you pass your silk behind the wings, between them and the end of the shank of the hook, and you lap your silk two or three



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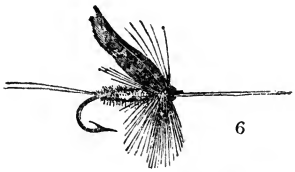
times tightly close over their base. They will now lie nearly as represented. To make them do so completely, you divide the fibres exactly in the middle with your dubbing-needle, and through the division you pass the silk; and then you wind it round the bottom of the division farthest from you, or that on the right side of the fly, and you bring back the silk, passing it again through the divided wings, and bringing it round and under the bottom of the division which is next to you. You now whip the silk behind the wings, and form the head part of the fly; fasten with a couple of slip-knots newly waxed, and clip off the depending silk; touch the knots with a little varnish, which will render them thoroughly safe. Your fly, consisting of tail, body, and wings, is now finished. If your wings are too long, pinch off with your finger-nails the unnecessary portion of the tips of the fibres; pick out your dubbing with your dubbing-needle, and make your body taper by taking away parts of the dubbing wherever you see it superfluous. The fly here represented has three visible defects. It has three tails, one of which should have been clipped off; the head is too thick and too long, which might have been prevented by fewer laps of the silk between the wings and the end of the shank; and the wings should be more pointed and equally divided. I have purposely left the defects

standing, in order to show how they are to be remedied.

Here is a complete fly, with wings, body, tail, and hackle for legs wound under the wings, and just before them.



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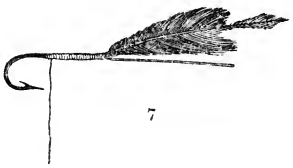
You see here the hackle-feather whipped on for the purpose of making the legs of a winged fly, or for making a plain hackle or a palmer-hackle. I will suppose you going to make the fly, Fig. 6. You arm your gut, as described at Fig. 1; you fasten on your wings, as shown at Fig. 2; and you then whip on your hackle, as here represented, close by the wings. You cut away butt-ends of the hackle and wing-fibres, and you whip your silk down towards the bend. Whip on your fibres or hairs for tail, and then spin on your dubbing, which you wind up to the thick ends of hackle and wing. Carry back towards the tail your silk a little, and then wind on over the body for two turns, in the same direction as your silk, your hackle-feather, which you tie down, and cutting off what remains of it unbound, bring your silk through the fibres



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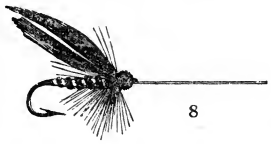
of the hackle behind your wings, which divide, and pass your silk through the division, and round the bottom of each wing, finishing at the head in the way directed for fly, Fig. 5. A fly made carefully in this way is a most general and killing one, wanting only, for higher finish, to be ribbed or tipped with tinsel.

I here present you with a fly ribbed with tinsel over the body. It is a difficult fly to make; and when you can make it well, you may consider yourself a proficient in the art of fly-dressing.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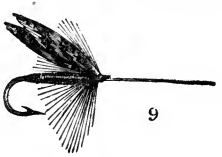
Arm your gut, then tie on your hackle for legs, and your wings as usual. Cut away thick end of hackle and wings, and wind your silk down to the tail. Attach your tail, and then your gold or silver twist, as may be. Spin on your dubbing, which wind up carefully to the wings, fasten with a slip-knot, and leave your silk depending. Go back to the tail, and take your gold or silver twist and lap it at regular intervals over the body up to the wings; fasten and cut away the remaining parts of the twist and dubbing; then wind your hackle a couple of turns over twist and dubbing in the direction of the tail, and fastening down the hackle cut away the point of it. Bring your silk back behind the wings; divide them, and finish in the way already

taught. In the body of the fly represented, you see white and dark ribs. The white are caused by the tinsel; the dark, by the portions of the dubbing which you have not covered with the twist or tinsel. In this figure there are three prominent defects: the head is too thick, the wings unequally divided, and the tail is omitted. These defects are designedly caused. They will often occur to the young fly-dresser; but when they do, he must unfasten his defective fly, and begin again.

The two last flies the learner has been studying are amongst the most difficult to make. I will give him a little relaxation now by presenting to him one or two flies more easily dressed —and here is one. It is a fly with plain silk for body, with wings and legs. The making of it should be frequently practised, as that will produce greater facility in dressing the more complicated flies. There is nothing like a good foundation. Arm your gut. Suppose the body of your fly to be delicate and of an orange colour, let the silk you use for arming be of that colour, waxed with colourless wax.* Consequently, whilst



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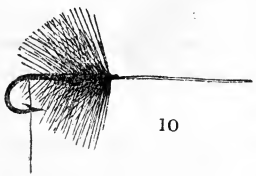
* Wax colourless, as far as the effect on coloured silk goes, may be thus made:—Take two ounces of the best and lightest-coloured resin, with a drachm of bleached beeswax; put them

you are arming your gut, you are forming the body of your fly. You must make that body of the requisite length and thickness, and of the proper tapering shape, by a few laps more or less of the silk. Tie on your hackle and wings, as shown at Figs. 7 and 2; wind on your hackle two or three laps down the body of the fly; fasten, and clip off the point of the hackle. Bring your silk back through the fibres of the hackle to behind the wings, which divide in the usual way, and finish at the head delicately. Never forget to varnish the final knot.

I now give you a simple hackle to make, which



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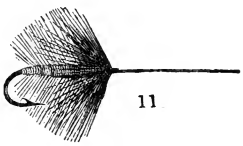
I think very easily done, though others do not. The great difficulty consists in winding the hackle-feather, so that its fibres may project below and above the hook with great regularity, tapering off

into a pipkin on a slow fire, until completely dissolved. Let the whole simmer for ten minutes. Then add a quarter of an ounce of white pomatum, and allow the whole, constantly stirring it, to simmer for a quarter of an hour longer. Now pour the liquid into a basin of clean cold water, when the liquid will instantly assume a thick consistency. In this state, and while it is yet warm, work it by pulliug it through the fingers until it be cold. This last operation is necessary to make the wax tough, and give it the bright silvery hue which it has when made to perfection.

according to their length towards the bend of the hook, and not being entangled, by some getting tied down by the others, or hitching in them uncouthly. Arm your gut, and attach your hackle as shown at Fig. 7; then wind your hackle to the bend of the hook, and there fasten; cut away your silk and the point of your hackle-feather. Now with your dubbing-needle pick out any of the fibres that may be caught in the winding-on, and clip away the points of those that project irregularly.

Before you now is a palmer-hackle, a most useful bait, representing a caterpillar. Arm your gut, and then attach your hackle-feather as usual, together with some floss silk, peacock or ostrich harl, or dubbing, to form the body. They must be attached near the end of the shank. First, wind your floss-silk, or harl, or other material for the body, down to the bend of the hook; then wind your hackle for legs all down the body, and fasten at the tail; clip away all that remains at the end of the hackle and body. Palmer-hackles are frequently ribbed with gold or silver twist. When you use it, attach your hackle first, then your twist or tinsel, and lastly your harl or dubbing. Note, as a general rule, that the material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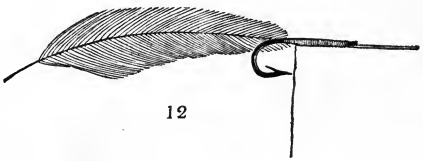
you attach first, is that which is to be wound round your hook last. Having attached hackle, tinsel, and harl near the shank of your hook, wind down the body of it towards the bend: first, your harl or dubbing; secondly, your tinsel; and lastly, over all, your hackle. Fasten, and cut away the ends.

I said before that very small flies are dressed differently from the way I have been teaching



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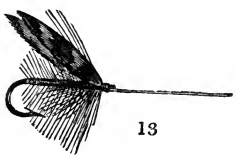
you hitherto. The chief difference consists in the wings being tied on last instead of first, after the gut has been armed. To dress flies with the wings fastened on last, you must arm your hook as usual, then attach your hackle-feather at the bend, as here represented, and then spin on your dubbing also from the bend. When you have wound up your dubbing to the shoulders, fasten it down there, and then wind up your hackle to the same spot; clear away the ends of dubbing and of hackle; set on your wings with the butt-ends towards the shank of the hook; lap your silk a couple of times round the butts of the

fibres. Divide the wings, and pass your silk through the division, as directed at Fig. 5. Finish at the head carefully. Wings set on in this way will sit bent forwards, and enable you to dress a finer body, and one composed of a great variety of materials. It may often happen that, after a little use, the wings will get spoiled, and the body of the fly remain uninjured. By the method taught here, you can attach a new pair of wings without interfering with the body, and that is an advantage. I think that wings tied on last generally sit better, but they cannot be tied on so firmly as the wings that are attached immediately after the arming of the gut, with the butt-end fibres pointing to the bend of the hook. As many insects have their wings lying flat on the body, such wings are best imitated by feathers tied on with their roots pointing towards the end of the shank of the hook.

The last specimen of fly-dressing I intend to give is a very simple one, though not the less valuable. It is a hackle, with the wings placed on last: that is, dressed reversely from the fly, Fig. 9. You see that the wings sit well, and as one way is as easy as the other, you may adopt whichsoever you like. In making plain hackles, you may begin



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by attaching the hackle near the end of the shank, as shown at Fig. 7; or near the bend, as seen in Fig. 12: 'tis six of one, and half-a-dozen of the other.

I have now shown the reader, as clearly and concisely as I could, how to dress the usual sorts of trout and grayling flies. The cuts are rather rough ones, because the models were designedly left in a rough state; lest if they were too much fined down, and finished, the learner, seeing that he could not easily approach their neatness, might be deterred from fly-dressing. When he can tie flies in this passably rough way, he must get finished models—those made by Blacker, of 54 Dean Street, Soho, being the best I have as yet seen; and laying them before him, he must pick, trim, and shave his own rough insect statues until he can fashion them as delicately as the most cunning professional artist. If he confide in the sure and steady improving progress which time and perseverance invariably produce, he will become his own complete artist in flies. In arranging the heads of this chapter, Mrs. Little, the wife of Mr. Little, fishing-tackle maker, No. 15 Fetter Lane, courteously assisted me.

MATERIALS USED IN FLY-DRESSING.

The substances the fly-dresser wants wherewith to make his flies are exceedingly various,—chiefly feathers, fur, hair, and silk. The colours he requires are still more various than the materials, and, therefore, some of the latter must be dyed. There is scarcely a bird or quadruped, particularly the smaller sorts, that does not contribute to the fly-dresser's magazine. The fly-maker who is a good judge of colour has an immense advantage over him who is not; he will find many suitably-coloured materials where the bad judge would never think of looking for them.

Feathers are obtained, remarks Mr. Blaine, from nearly every bird, from the gigantic ostrich down to the Lilliputian wren. Nothing can well be commoner for making flies than the ostrich harl, or the individual fibres of some of the plumes of that bird, dyed variously. Peacock harls, or single fibres of its largest feathers, are still more common for the bodies of flies. The wings of small flies are made of the wing-feathers of the starling, lark, landrail, hen pheasant, partridge, woodcock, plover, snipe, dotterel, sea-swallow, sea-gull, wild duck, teal, water-hen, domestic hen, and many other birds. The tomtit's tail affords an excellent blue feather for wings and hackle. Foreign birds

afford an infinite variety of feathers for gaudy flies.

Hackle-feathers are very valuable, and, as Mr. Blaine says, 'they are generally those which deck the neck and rump of the cock. Such hackles only should be chosen as have fibres about half an inch long, and those from the game-fowl are to be preferred. The principal colours are white, black, grizzled, grey, ginger, light red, dark red, and the variety in which the dark red is divided by a black listing. The dun or blue hackle is difficult to obtain, not only on account of the colour, but because, as it is wanted to dress minute flies (the duns), those of the dun cock are rather too long and gross, and those of the dun hen too weak.' The dun hackle is seldom to be got pure. Fowls' feathers should be plucked in winter, and from full-grown birds. The feathers of male fowls are generally the best. The backs and tails of the partridge, grouse, golden plover, snipe, and some other wild fowl, afford excellent hackles. Golden pheasant's feathers from the head and neck are most valuable for salmon flies.

Furs can be easily got at the furriers'. Those most wanted are bear's,—grey, black, brown, and dun of every shade; badger's, sable, and martin's fur, particularly the parts about the head of the former, and the yellow-spotted portions under the jaws of the latter; squirrel's fur, American and

English: also the fur of the water and house rat, field-mouse, mole, hedgehog, seal, both dyed and natural. Skins of the black, sandy, and grey rabbit, in all their varieties, are useful; also those of the ferret, weasel, and polecat. The fur of the ears, head, and neck of the hare is most useful. Mr. Blaine advises 'that skins of all kinds, when they fall in the angler's way, should be looked over, and any striking portions preserved, every one of which may prove valuable in the hour of need.'

Of hair, there is none more useful than that called 'hog's down.' Naturally it is of various colours, and can be dyed of any hue advantageously. It resists the water well, and when immersed in that element retains its vividness of colour, whatever that may be. I have a high opinion of mohair, which can be obtained of every colour. Worsted is only suited for the bodies of large flies.

For tying on flies the best silk is that which is the finest and strongest. Undyed silk is always the strongest, and the floss silk used for making delicate fringes, and the sewing-silk employed in the finest sort of glove-work, are perhaps the best. If you use them of different colours, wax them with the wax, to make which I have already given you a recipe. If you use white silk only, you must wax with wax dyed the general colour of

the body of the fly you are dressing. Common shoemaker's wax is, however, the most useful; and, unless we be very particular, it may on all occasions supersede dyed wax. Thick floss silk and camlet of various hues are necessary for the bodies of some flies and palmers.

The instruments for fly-dressing are few, and practice will make them fewer. At first you will want a small table-vice, a small spring-pliers, a penknife with a file-blade, two pairs of scissors of the very best manufacture—one with long and fine blades, ending in the sharpest and finest points, another with short stout blades and large finger-loops, and as correctly pointed as the other. A large needle, with a fine point and fitted into a small handle, is necessary to divide the wings, to pick out the dubbing, and to free the fibres of the hackle when required.

A FEW RECIPES FOR DYEING.

Under the head of the May-fly, will be found a recipe for dyeing feathers a yellowish green. Mr. Packer, in his 'Dyer's Guide,' dyes feathers yellow thus:—Into a saucepan three parts filled with *soft* water, put the feathers to be dyed; and when they are thoroughly wetted, add a small quantity of sulphate of iron. Simmer them over a moderate fire a few minutes, and the feathers

will have gained the colour-base or mordant. Remove the liquor from the feathers, and put to them instead a smaller quantity of soft water; and when it is of a simmering heat, add a small quantity of powdered Aleppo galls.

The requisite shades of dun colour may be obtained by varying the quantities of the iron and galls. For a full dark dun, add sufficient quantities of the sulphate and galls. By increasing or diminishing the proportions of either of these articles, you will obtain duns of divers shades. If logwood be used instead of galls, a different tint will be the result. Madder, camwood, the bark of the alder-tree, walnut-peels, produce different hues. Galls, logwood, and madder should, however, be omitted when the colouring is intended to approach a red or brown. The light shades in all cases should be first gained, and any other deeper hue added afterwards. Hard water should not be used in dyeing. Having given to the feathers their mordant or base, as already directed, add either sulphate of iron, sulphate of alum, acetate of alum, or acetate of copper, according to the intended shade. Wash the feathers from the mordant, and put them into a strong decoction of that plant which the dyers call weld. Simmer them in this a few minutes, strengthening or weakening the weld-decoction in proportion as the colour is to be more or less

brilliant. A little practice, and the noting of the various results after each trial, will soon make the angler familiar with the methods of varying the colours so as to meet his wishes. These instructions, Mr. Packer states, apply to wool also, which may be tinted in the same manner.

Mr. Ronalds *dyes white feathers a dun colour thus:*—Make a mordant by dissolving about a quarter of an ounce of alum in a pint of water, and slightly boil the feathers in it, taking care that they should be thoroughly soaked or saturated with the solution; then boil them in other water with fustick, shumach, and a small quantity of copperas, put into it until they have assumed the required tint. The fustick and copperas will produce a yellow-dun tint, the shumach and copperas a blue-dun tint. The greater the quantity of copperas, the deeper will be the dye.

To turn red hackles brown.—Put a piece of copperas, the size of half a walnut, into a pint of water; boil it, and whilst boiling put in the red feathers. Let them remain in it until, by frequent examination, they are found to have taken the proper colour.

To stain feathers an olive dun, &c.—Make a very strong infusion of the outside brown coating of an onion, by allowing the whole to infuse by the fire for twelve hours. If dun feathers are boiled in this dye, they will become an olive dun,

and white feathers a yellow. If a small piece of copperas be added, the latter colour will become a useful muddy yellow, darker or lighter as may be required, and approaching to a yellow-olive dun, according to the quantity of copperas used.

To dye feathers dark red and purple.—Hackles of various colours, boiled (without alum) in an infusion of logwood and Brazil-wood dust until they are as red as they can be made by this means, may be changed to a deeper red by putting them into a mixture of muriatic acid and tin, and to a purple by a warm solution of potash. As the muriatic acid is not to be *saturated* with tin, the solution must be made diluted. If it burns your tongue much, it will burn the feathers a little.

To dye feathers various shades of red, amber, and brown.—First boil them in the alum mordant already mentioned; secondly, boil them in an infusion of fustick strong enough to bring them to a bright yellow (about a tablespoonful to a pint of water); then boil them in a dye of madder, peach wood, or Brazil wood. To set the colour, put a few drops of *dyer's spirits* (i.e., nitrate of tin combined with a small quantity of salt), which may be had from a silk-dyer, into the last-mentioned dye.

To stain gut the colour of weeds, water, &c.—Make an infusion of onion coatings, as before

directed; and when quite cold, put the gut into it, and let it remain until the hue becomes as dark as required. A strong infusion of green tea will dye gut a useful colour. So will warmed writing-ink: the gut to be steeped in it a few minutes, and immediately afterwards to be washed clean in spring-water. You will obtain another good colour by steeping gut for three or four minutes in a pint of boiling water in which you have put a teaspoonful of alum, a bit of logwood the size of a hazel-nut, and a piece of copperas the size of a pea. To make your gut a water-colour, take a teaspoonful of common red ink; add to it as much soot, and about the third of a tea-cupful of water; let them simmer for about ten minutes; when cool, steep your line until it be stained to your fancy. This is a very good colour for the purpose, but should be applied gradually, taking out your gut frequently to examine the depth of the tint, lest it should become too dark.

CHAPTER V.

A MONTHLY LIST OF FLIES FOR THE SEASON.

For February and March.

I HAVE NOT in this edition inserted so many flies as in the previous ones. I have omitted several occasional killers, and retained good ones only. I have every reason to flatter myself that the list as it now stands, amended and purified, will be found the most useful one ever laid before the angling community. The flies described in it, if properly dressed, will kill trout and grayling universally.

No. 1. *Early dark dun.*—Body, water-rat's or mole's fur; wings, an old cock-starling's wing-feather; legs, dark dun hackle; tail, two fibres of a dark grizzled hackle. Hook, No. 9.

No. 2. *Olive fly.*—Body of dark olive mohair; wings, a starling's wing-feather, to stand upright; tail, two whisks of a mottled mallard's feather; to be tipped with a lap of silver tinsel. This fly may be advantageously varied by mixing with the mohair a little yellow hare's fur, and tying on with yellow silk. Hook, as before.

No. 3. *The red fly.*—Body of the dark red part of squirrel's fur, mixed with an equal quantity of claret-coloured mohair, showing most claret colour at the tail of the fly; to be spun on, and warped with brown silk. Wings, from a ginger-dun covert feather of the mallard's wing; legs, a claret-coloured stained hackle. Hook, Nos. 9 and 10.

No. 4. *The dark hare's ear.*—Body, dark fur, of the hare's ear; wings, woodcock's wing-feather, the redder the better; legs, the fur picked out at the shoulder; tail, two fibres of the brown-mottled mallard feather; small gold tip. Hook, Nos. 10 and 11.

No. 5. *The hare's ear and yellow.*—Body, dark hare's ear fur, and yellow mohair mixed; wings, starling's wing-feather. To be made taper in the body; fur picked out at the shoulder for legs. Hook, No. 10. Good in March and April. A general fly.

No. 6. *The partridge hackle.*—Body, light and dark hare's ear fur, mixed with yellow mohair, and ribbed with yellow silk; wings and legs, the brown-mottled back-feather of the partridge. Hook, Nos. 10 and 11. An excellent fly.

No. 7. *The red spinner.*—Body, brown silk, ribbed with fine gold twist; tail, two fibres of a red cock's hackle; wings, some transparent light-brown feather; legs, red cock's hackle. Hook, 10.

No. 8. *The furnace-fly.*—Body, orange-coloured silk; wings, a fieldfare's feather; legs, a cock's furnace-hackle. A good general fly. The feather called the furnace-hackle is rather a rare one. Its outside fibres are a beautiful dark red; that portion of them next to the stem being black. It is got from a cock's neck.

No. 9. *Hofland's fancy.*—Body, reddish dark-brown silk; wings, woodcock's wing; legs, red hackle; tail, two strands of a red hackle. Hook, No. 10. This is a good general fly for trout and dace, particularly in the rivers near London.

No. 10. *The Maltby.*—Body, cinnamon-brown mohair; wings, woodcock's wing-feather; legs, small black-red hackle; tail, two fibres of the brown mallard's feather; gold tip. Hook, No. 12.

No. 11. *The cuckoo dun.*—Body, lightest part of water-rat's fur, mixed with yellow mohair; wings, hen pheasant's wing-feather; legs, a dun cock's hackle, with dark bars like a cuckoo's back-feather; tail, two fibres of a grizzled hackle. Hook, No. 10.

No. 12. *The March-brown, or dun drake.*—This is, perhaps, the best fly that can be used from the middle of March to the middle of April, and sometimes up to May. It is a large, showy fly, and almost as great a favourite in March as the May-fly in May. It has various names, viz. the cob-fly, brown caughlan, and turkey-fly, and kills

everywhere. In a work I edited formerly, I find the following note:—'On the 23rd of March, 1836, we killed with this fly, from one and the same standing on the Dove, sixteen trout and one grayling. We fished with two flies of this sort on our casting-line at the same time, and we caught three times successively two fish at one cast. We should have caught many more, had it not been for an accident that occurred to our tackle; for, before we could repair the damage caused by it, the rising time of the fish was over. From the middle of March to the middle of April it is decidedly the best and most killing fly that can be fished with in the trout-streams of the midland counties. We recommend the angler to fish with two flies of this sort on his casting-line at the same time, one ribbed with gold twist, and the other without. The best time for fishing with this fly is between the hours of eleven and three o'clock, especially if the water be curled by a smart breeze.'

Dress this famous fly as follows:—Body, orange-coloured silk, or deep straw colour, over which wind some fox-coloured fur taken from a hare's poll; legs, a honey-dun hackle; wings, to stand erect, of the top of the light or inner fibres of the feather of the hen pheasant's wing; tail, two fibres of the same feather. Rib with gold twist for your tail-fly, and let your dropper be without

any twist. When the natural fly is out well upon the water, and fish are voraciously taking it, angle with three flies on your foot-line, varying them slightly in size and colour. Hook, Nos. 8, 9, and 10.

No. 13. *Blacker's March-brown.*—Body, light and dark hare's ear fur, mixed with a little yellow brown mohair, and ribbed with pale-yellow silk; wings, hen-pheasant's wing-feather, or grey mottled feathers of the partridge's tail; legs, small brown partridge's back-feather; tail, two fibres of the brown mallard's feather. Hook, Nos. 9 and 10.

No. 14. *The great red spinner* is a metamorphosis of the dun-drake, and is in season longer. It kills well on fine evenings, and may be used in conjunction with the dun-drake. It is a fine showy fly, dressed thus:—Body, brown red hog's down, ribbed with gold twist, and tied on with brown silk; wings, starling's wing-feather; legs, bright amber-red hackle; tail, two fibres of the same feather. Hook, No. 9.

No. 15. *The soldier palmer.*—Body, bronze-coloured peacock harl, ribbed with fine gold twist, and two black-red or furnace hackles, struck with strict regularity from the tail to the shoulder. Hook, No. 10 or 11. A general fly, and special favourite with grayling

No. 16. *Coch-y-bonddu.*—Body, short and full, of black ostrich and brilliant peacock harl twisted

together; wings and legs, a dark furnace cock's hackle of the purest black and red colour. Hook, Nos. 10 and 11. This is a famous fly. If fish will not rise at it, you may conclude that they are not 'on the feed.' They either take it for a small red and black caterpillar, or for a round black and red beetle. Fine warm cloudy days are the best for its successful use.

Flies for April.

April is the best fly-fishing month for trout in the year. That fish is then getting strong and voracious. The water is generally in good tune, being neither too full nor too low. The weather is often as it ought to be: wind blowing west or south with alternate sun and clouds. The temperature is moderate. Fish are to be found in the streams, and also in deepish water—the largest and the best-conditioned in the latter. The pools are often aptly ruffled by a genial breeze, and can be fly-fished to the greatest advantage. All the good flies of March will kill in April. Add to them the following:—

No. 17. *Stone-fly.*—Wings, a mottled feather of the hen-pheasant, or the dark-grey feather of a mallard, rather inclining to red, to be dressed large, long, and flat:—Body, yellow-brown mohair

mixed with light hare's ear fur and ribbed with yellow silk, so distributed in making the body of the fly that the under and hinder parts may exhibit most yellow to the fish; legs, a brown-red hackle; tail, two fibres of the brown mallard. Hook, Nos. 5, 6, or 7.

This fly is a large and tempting bait, but you must have it dressed of different sizes, since its size varies according to locality. In small, sheltered, well-wooded streams the insect's growth is very large; on wide bleak waters it is smaller. This insect is named by some the caddis-fly. It appears in April, and is found until July. It kills best on warm, cloudy, windy days, especially in the morning and evening. The live fly is an excellent one for dibbing.

No. 18. *The cowdung-fly.*—Body, lemon-coloured mohair; legs, ginger-coloured hackle; wings, from the wing-feather of a landrail, to lie flat on the body, and be longer than it. To be dressed with orange silk. A general summer fly, but seldom killing except on windy days.

No. 19. *The oak-fly, or down-looker.*—This fly is my fancy. It is generally considered as fit chiefly for the summer months, but I consider it the best English trout-fly for those April days which are not too cold and windy. During the last fortnight of April the fly-fisher should never angle without this fly. It is called by some the

ash-fly, cannon-fly, and woodcock-fly. It is found on the trunks of trees by the river-side, in a state of quietude, its wings lying close to its back, and its head looking downwards—hence one of its names. In May and June this fly is also in season, and it will kill well in deep streams, and on pools that are ruffled by a strong but tepid wind. I shall give but one way of dressing it, the very best, which is as follows:—

Body, yellow mohair, ribbed regularly with dark-brown silk; legs, a honey-dun hackle wound thrice under the wings, which are to lie flat and short, and be made of the wing-feather of a young partridge or hen-pheasant. To be tipped with pale gold twist. Hook, Nos. 8, 9, and 10.

No. 20. *The sand-fly.*—Body, bright sandy-coloured fur from the hare's neck, mixed with a very small quantity of orange-coloured mohair; legs, a ginger hackle; wings, the sandy-coloured feather of the landrail's wing. If dressed as a hackle, the feathers from under the wings of a thrush or red-wing will be found proper.

Of this fly Mr. Bainbridge observes, that 'It may be considered as one of the best for affording diversion which can possibly be selected, for it may be used successfully at all hours of the day, from April to the end of September; and is equally alluring to trout and grayling.' Though I have not so high an opinion of this fly, I think

it one that should be tried, in conjunction with the oak-fly, in April and May. It may be used of a small size in August. I agree with Mr. Ronalds, who says—'My own experience leads me to recommend the sand-fly during April and May, on days when there is no abundance of any particular insect on the water. A fly very like it is used in September and October, called the cinnamon-fly.'

No. 21. *The grannam, or green-tail.*—This fly is very well known, but, generally speaking, it is too highly spoken of. It lasts only for about ten days in April, and its chief value is that it is a morning fly, and will kill from sunrise to eleven o'clock, when the mornings and forenoons are fine, and the water moderately clear and low. It is dressed as follows:—Body, dark hare's ear fur, mixed with a little blue fur; at the tail a twist of a green harl from the eye of a peacock's feather, or a lap or two of green floss-silk; wings, from the wing-feather of a partridge or hen-pheasant; legs, a yellow grizzle hackle. Hook, No. 8 or 9.

No. 22. *The alder-fly.*—Body, any dark claret-coloured fur, as that which a brindled cow yields, and that of a copperish hue, from a dark brindled pig or a brown-red spaniel's ears; upper wings, red fibres of the landrail's wing, or red tail-feather of the partridge; lower wings of the starling's wing-feather; legs, dark-red hackle; horns

and tail of fibres the colour of the legs—the horns or *antennæ* to be shorter than the body of the fly, but the tail a little longer. Hook, Nos. 9 and 10.

No. 23. *The Robin Hood.*—Body, blue mole's fur, blood-red hackle under the shoulder; wings, light-grey mallard's feather; tail, two fibres of the same. Hook, Nos. 9 and 10. Vary this killing fly by substituting a brown-red mohair body for the mole's fur.

No. 24. *The blue-blow.*—Wings, from the tail-feather of a tomtit; body, blue water-rat's or monkey's fur; legs, a fine light-blue hackle; tail-whisks, two blue hairs. Hook, Nos. 10, 11, and 12. Of this fly Mr. Blaine says: 'It comes on early in March, and continues through April, when it is succeeded by a race of flies in which the blue-dun tinge predominates in various proportions. It is well therefore to be prepared with the gradations of this fly, of which the ashy-dun appears the first. In favourable days the blue-dun will kill in all the fishing-hours, particularly in April, but best towards mid-day. It is likewise almost universal on the British waters.'

Nothing can be more true than Mr. Blaine's reasoning touching those very general and very good baits, called palmers, or palmer-hackles. He says: 'As they are meant to represent the larvæ or caterpillars of flies, as well as some of the insects themselves, it is very evident that their

sizes and colours may be varied to infinity. If our experience did not inform us that they are very effective in taking fish, we should be naturally led to expect it; for as every tree and every bush which overhangs the water teems with one or more varieties of larvæ, which must be constantly liable to fall into it, and as from their natural plumpness of figure they must form a delicious morsel, we need not wonder that the fish are always ready to receive them, unless something more tempting (as when particular favourite flies are on the water) is at hand to attract their attention. As these larvæ are continually appearing in endless succession, so palmers are used to advantage from March until the latest period of fly-fishing, or at least until October. In May, June, July, and August they are, however, in the greatest request. When the innumerable variations in the size, form, and colour of the larvæ of insects are considered, it is evident that the directions in our angling-books to confine the number of palmers to three, four, or five, are limited in the extreme; but it is still more erroneous to confine their size to a No. 6 hook. On the contrary, there is such an endless number of them, each different from the other, that the dresser may vary them in any way he pleases with effect, tying them on hooks from No. 4 to No. 9; but keeping these general principles in view, that when the water is

fine and low, they should be dressed small, and sober in their tone of colour, but when used on waters which are disturbed, and the day is dark, such as are larger and more conspicuously coloured are required.'

Palmers kill better in England than in any other part of the Empire. They are better suited to streams running somewhat smoothly through flat districts, than to the precipitous ones that dash through hills and mountains. I subjoin a list of them :—

No. 25. *Black palmer-hackle.*—Body, black ostrich harl, ribbed with gold twist ; black cock's hackle wound over the whole. Hook, Nos. 4, 5, 6, or 7.

When palmers are dressed large they may be tied on two hooks, whipped lengthways, bend to shank, on the gut.

No. 26. *Brown palmer-hackle.*—Body, brown floss-silk, or brown fur, or mohair of a deep amber, or a rich brown ostrich harl, ribbed alternately with gold and silver twist; legs, a red cock's hackle. Hook, as before.

No. 27. *Red palmer-hackle.*—Body, dark red-coloured mohair, with a little richly-tinted red fur intermixed, to be ribbed with gold or silver twist ; legs, a blood-red cock's hackle. Hook, as before.

No. 28. *Golden palmer-hackle.*—Body, green

and gold peacock harl, ribbed with gold twist; legs, a bright red cock's hackle, worked with a rich green silk. Hook, Nos. 5, 6, 7, or 9.

No. 29. *Peacock palmer-hackle.*—Body, a rich full fibre of peacock harl, ribbed with wide silver platting. Make a head to this palmer with a bit of scarlet mohair. Legs, a dark grizzled hackle, dressed with red silk. Hook, No. 5 or 6. This hackle, dressed very large, will kill Thames trout and chub of the largest size.

No. 30. *A good general palmer.*—Body, long and tapering, of yellow mohair; legs, a good furnace hackle wound on from tail to shoulder; head, black ostrich harl. Hook, 4, 5, 6, or 7.

No. 31. *The whirling dun.*—Body, water-rat's fur, ribbed with yellow silk; wings, cock-starling's wing-feather; legs, blue-dun hackle; tail, two fibres of a grizzled hackle. Hook, 8 or 10.

No. 32. *Dotterel-hackle.*—Body, yellow tying silk, with a very little blue rabbit's fur spun on it, so as to show the yellow of the silk; wings and legs, dotterel hackle round the shoulder. Hook, 12, sneck bend.

No. 33. *Golden plover-hackle.*—Body, yellowish-green floss-silk; wings and legs, the golden-plover's back-feathers. Hook, 10 and 11.

No. 34. *Carshalton cock-tail.*—Body, blue-dun fur, mixed with a little of the light fur of the

hare's ear and yellow mohair; wings, light fibres of the hen-starling's wing; legs, a turn or two of a small light dun-hackle; tail, two fibres of a grizzled hackle. Hook, 11 and 12.

Flies for May.

This month is one of the best of the season for using small duns, provided the water be clear, and particularly that period of the month which precedes the arrival of the *ephemera vulgata*, or the May-fly, or green-drake. I shall give a list of them and other good flies, and conclude the month with its chief attraction, the beautiful insect just named. Many of the April flies will kill in May, and the duns of the latter month will kill in the former, provided the weather be fine and the water low.

No. 35. *The wren-tail fly.*—Body, gold-coloured mohair, dressed fine; wings, grey tail-feather of the partridge; legs, wren's tail-feathers struck on at the shoulder; tail, two fine fibres of brown mallard feathers. Vary the body with orange mohair; and for a third change, with green floss-silk. Hook, 10 and 11.

No. 36. *Wren-hackle.*—Body, cinnamon-brown mohair, dressed fine and carefully picked out; gold tip at tail; wings and legs, wren's tail-feather. Hook, 11 and 12.

No. 37. *Grouse-hackle.*—Body, gold-coloured floss-silk; wings and legs, light-brown grouse hackle, from the neck of the bird. Hook, 10 and 11. The last three are general summer flies.

No. 38. *The little yellow Sally.*—Body, light buff-coloured fur; wings, the yellow feather under the thrush's wing, to stand erect; legs, a very small yellow-dun hackle; tail, two fibres of the same. Hook, No. 13.

No. 39. *The black gnat.*—Body, black ostrich harl clipped close to the stem to shorten the fibres; wings, starling's wing-feather; legs, a turn or two of small black hackle at the shoulder; tip, gold or silver tinsel. Hook, 12 or 13.

No. 40. *Hawthorn fly.*—Body, black ostrich harl clipped in the fibre, and dressed long and spare, with two or three turns of a black hackle round the shoulder; wings, pinion-feather of the jay's wing. Hook, 9 and 10.

No. 41. *Sky-blue.*—This is one of Mr. Ronalds' beauties, bred, he says, from a water-nymph. I have a high opinion of its attractions when the water is low and clear, and the weather propitious —breezy, warm, with alternate cloud and sunshine. Let it be dressed carefully on a small hook with fine gut, and it will kill when larger flies are of no use. It is made thus:—Body, pale ginger mohair mixed with light-blue fur; wings, from a feather of the sea-swallow; legs, a pale-yellow

hackle; tail, a couple of strands of the hackle. Hook, No. 11 and 12.

No. 42. *Fern-fly.*—This is an admirable May and summer fly. It is very showy, and will answer best on gloomy, sultry days. Towards evening, I have been in my time very successful with it, particularly close under the banks. The proper-sized hook is No. 10; and when the water is very low, a size smaller. The body is to be made of deep brilliant-coloured orange silk, whipped sparingly with fine gold wire; wings, lying rather flat, to be made of the light mottled fibres of a young partridge's wing-feather; legs, a turn or two of a small fiery-red hackle. Hook, 11 and 12.

No. 43. *The bluebottle.*—Body, stone-blue floss-silk, tipped with gold; wings, starling tied flat; legs, black hackle. Hook, 8, 9, and 10.

When trout and grayling are gorged with the May-fly and other day-flies, they often take freely, towards evening, an imitation of the house-fly and bluebottle. Such imitations kill all the summer through on dark windy days. They are more freely taken by chub and dace than by trout.

No. 44. *The wasp-fly.*—I have a good opinion of this fly; for its body is well-coloured, and it must prove a favourite with fish. Besides, the body is large and taper; and with its alternate

dark and yellow rings, fish must like its appearance. I have always had the best opinion of these regularly party-coloured flies, with somewhat large bodies, ringed with either black and white, black and yellow, brown and yellow, or orange spiral stripes, and having large, reticulated, transparent wings, with dark heads, and darkish tails. Such are the March-brown, the oak-fly, the hare's-ear-and-yellow, the wasp-fly, and a few others. If these flies are tied very large, they will kill salmon, the largest species of trout, and the largest chub. Tied on 9 and 10 hooks, they are excellent general brook-flies for trout and grayling. The wasp-fly is dressed thus:—Body, light orange mohair, dubbed in very thin ribs, and alternated with black ostrich harl, neatly and finely. Form the head of bronze harl; legs, two turns of a light brown-red hackle. Hook, No. 7, 8, and 9; and make the wings of a partridge-hackle or mottled mallard's feather. Dress it large, and the fly will kill well in the Thames.

There are evening and night flies which come into use towards the latter end of May, and last during the whole of the summer. They are imitations of those large moths that are seen towards nightfall flitting about the meadows in warm weather. The dark-coloured should be used early in the evening, those of a lighter colour after sunset, and those that are white after that.

No. 45. *The mealy-brown moth.*— Body, any soft brown fur, as of the hare, brown hog's down, bear's fur, and the nearer the shade is to tan the better; upper wings, the dappled feather of a mallard dyed brown; under wings, the soft feather of a brown owl; legs, a brown cock's hackle, wrapped four or five times behind the wings. Hook, No. 5, 6, and 7.

No. 46. *The mealy-cream moth.*—Body, any soft fur of a cream colour; upper wings, the cream-coloured feather of the grey owl; under wings, a softer and lighter feather of the same bird; legs, a soft ginger hackle. Hook, the same size as before.

No. 47. *The mealy-white moth.*—Body, white rabbit's fur, or white ostrich harl, dressed full and exhibiting a brown head; wings, any soft mealy-white feather; legs, a white cock's hackle, wrapped round twice under the wings. Hook, as before.

No. 48. *The coachman.*—Body, peacock's harl, full and short; wings, fibres of any small white feather; legs, a turn or two of a red hackle. Hook, No. 6, 7, 8, and 9. This fly kills only of evenings and in the rivers of the south, and in those within forty miles of the metropolis. Trout, chub, and large dace take it freely.

If moth-flies are properly used, they will take the largest fish. A young angler should have but

one at a time on his casting-line, which should be of stout gut, not longer than two yards. He should keep his fly on the surface of the water, and must judge of a rise, if fishing in the dark, more by hearing and feeling than by sight. He must strike promptly, and play his fish with a tight hand.

No. 49. *The May-fly, or green-drake.*—This famous fly is the opprobrium of fly-makers. Try how they will, they cannot in my opinion imitate it well. The wings are their greatest foil. In making the body they succeed tolerably well. Still the best imitation is defective, and, except upon certain occasions, the artificial May-fly is not a deadly bait. The natural fly used in dibbing far surpasses it. However, the imitation, faulty as it is, will kill when the natural fly is scarce on the water, as in cold, dark, windy days. The artificial fly kills in currents and pools that are moved to small waves and billows by a bluff west or south wind.

The general feather used for the wings of this fly is a dappled one found by the sides under the wings of the mallard, and dyed a pale green-yellow colour. To hit the true colour is the great difficulty. To get over it I know not how. I must be content to cite the best authorities. First, I will take Mr. Blacker, a capital judge of colours, who dyes his feathers yellow according to

the following recipe:—Boil two or three handfuls of yellow wood one hour in a quart of soft water; wash the mallard hackles in soap and hot water; then boil them a short time, with a large spoonful of alum and tartar, in a little pipkin with a pint of water; take them out and immerse them in your yellow decoction, and simmer them slowly for an hour or two. The shorter the simmering, the paler the yellow of the feathers; take them out and wash them in clear hard water. When there is occasion for dyeing *yellow-green*, add a little blue, more or less, according to the shade of green you wish to give to the yellow.—Mr. Ronalds recommends another way for dyeing mallard's feathers for the May-fly's wings. He tells us to make a mordant by dissolving about a quarter of an ounce of alum in a pint of water, and then to slightly boil the feathers in it to get the grease out of them, after which to boil them in an infusion of fustick to procure a yellow, and then to subdue the brightness of the yellow by adding a little copperas to the infusion.—Having now the wing-feathers dyed, I'll tell you how to make the fly:—Body, bright yellow mohair, or floss-silk, ribbed slightly with light bronze peacock's harl; wings, mottled feather of the mallard dyed a pale yellow-green. They are to stand nearly erect, and to be slightly divided. Legs, a couple of turns of a red-ginger hackle; tail,

three hairs from the rabbit's whisker. Hook, Nos. 5, 6, and 7. Another way:—Body, yellow-green mohair; wings, mallard's feather dyed yellow—a black head; legs, yellowish hackle; tail, three hairs from a black bear. A third way (Blacker's):—Body, yellow silk ribbed with brown silk, and a narrow strip of fine transparent gold-beater's skin wound over all, through which the yellow and brown ribbed body will appear naturally; wings, as before; legs, a yellow grizzled dun-hackle; tail as before.

During the season of the May-fly, should the weather be gloomy, with a strong warm wind, I would angle with three flies of different sizes, and having the wings of colours slightly differing, and one made buzz without erect wings; because doing so would afford me three different chances of success.

No. 50. *The grey-drake* is said to be a metamorphosis of the green-drake, or female changed to a male. This fly is seldom a good angling one, and never kills well except towards evening. Dress it thus:—Body, exactly like that of Blacker's last green-drake, but the wings are to be made of the light-grey mallard feather not dyed. Hook, Nos. 7 and 8.

During the prevalence of the May-fly, trout fatten and grow into condition. They are never so before that fly appears, and when it has disap-

peared they remain in good condition until the spawning season. When fish have gorged themselves with this fly and leave off feeding, towards the evening they will be tempted by flies of very different sizes and colours. The best are, for mild weather, little dun-hackles of every shade, the grouse and wren-hackle, house-fly, and at dusk a moth-fly. Should you want trout very badly during the drake season, try a minnow morning and evening, and your wants will be soon supplied.

Flies for June.

I need scarcely remind the reader that the May-fly prevails during the greater part of this month; and that during it, several of the duns mentioned for May will still catch fish. The following are considered proper June flies:—

No. 51. *Dark mackerel.*—Body, dark mulberry floss-silk ribbed with gold twist; wings, brown-mottled feather of the mallard, which hangs from the back over a part of the wing; legs, a purple-dyed hackle; tail, three rabbit's whiskers. Hook, Nos. 9 and 10.

No. 52. *Orl-fly.* — Body, ribbed alternately with dark-brown and orange dubbing, adding two horns; wings, landrail's ruddy feather, dressed long and rather flat; legs, a grizzled hackle.

Hook, Nos. 7 and 8. A good fly when the water is clearing after a flood.

No. 53. *House-fly.*—Body, black ostrich harl dressed rather full; wings, a lark's wing-feather to lie flat and extended; legs, a dark dun-hackle. Hook, Nos. 9 and 10. In autumn, on windy days, this fly is often taken greedily by trout and grayling. It is a better fly for chub and dace.

No. 54. *Blue gnat.*—Body, blue-dun mohair with a little orange-coloured mixed; wings and legs, a small dun-hackle wound over the whole of the body. To be dressed with orange silk. Hook, Nos. 10, 11, and 12. An excellent fly throughout the summer and autumn, when the water is low and clear.

Flies for July.

Nearly all the flies mentioned in the list for last month will kill in this, but, generally speaking, they must be dressed smaller, and on finer hooks and gut.

No. 55. *Large black ant-fly.* — Body, black ostrich harl dressed thick near the wings, then thin, and thick again at the tail, like the shape of the ant; wings, tomtit's tail, or any light-blue transparent feather; legs, two twists of a deep brown hackle close under the wings. Hook, Nos. 7 and 8.

No. 56. *Large red ant-fly.*—Body, copper-coloured peacock's harl, full near the wings and tail; wings, a lark's wing-feather; legs, red cock's hackle. Hook, Nos. 7 and 8. When the water is low and clear, these flies should be dressed smaller, on Nos. 9 and 10 hooks. They will kill well in the middle parts of the day in fine warm weather. They are good autumn-flies.

No. 57. *Pale dun.*—Body, yellow martin's fur; wings, a lark's wing-feather, stained a light yellow; legs, a fine honey-dun hackle. To be dressed very neatly with pale straw-coloured silk on a No. 12 hook. An excellent summer-fly in low and clear water.

No. 58. *The little gosling.* — Body, yellow-green mohair, or floss-silk; wings, bunting's wing-feather; legs, cinnamon-hackle. Hook, No. 12 and 13.

No. 59. *The grey housewife.* — Body, light-brown mohair, mixed with hare's ear fur; wings, hen-pheasant's wing-feather; legs, grey throat-feather of the partridge; tail, two fibres of the mallard. Hook, Nos. 10 and 11.

No. 60. *The little ash dun.*—Body, light ash-coloured fur; wings, bunting's wing-feather; legs, cinder-coloured dun-hackle; and tail, two fibres of the same. Hook, No. 14.

No. 61. *Emerald fly.*—Body, emerald-green mohair, or silk; wings, bunting; legs, black-red

hackle; tail, two fibres of a grizzled dun-hackle. Hook, Nos. 13 and 14.

The wren and grouse hackles before mentioned should be always tried throughout this month and the next.

Flies for August.

Small palmer-hackles, small ant-flies, will kill well this month, and in the evening the various moths. Small brown-bodied flies will kill well also, and so will the different duns and hackles recommended for July.

No. 62. *August dun.*—This is one of the best flies that can be used for August and September. Mr. Ronalds dresses it thus:—Body, brown floss-silk ribbed with yellow silk thread; wings, feather of a brown hen's wing; legs, plain red hackle stained brown; tail, two rabbit's whiskers. Hook, Nos. 9 and 10.

No. 63. *Cinnamon-fly.* — Body, seal's fur not dyed; wings, of a ruddy cream colour, from a feather of the landrail, to be dressed long, large, and flat; legs, a red-brown hackle. Hook, Nos. 8 and 9.

Flies for September.

Still continue the palmer-hackles, with the grouse and wren hackles, golden and dark duns, alder-fly, Hofland's fancy, the cinnamon-fly, and the following:—

No. 64. *Harry long-legs.*—Body, light dun fur, mixed with hare's ear and a very little yellow mohair, made taper, long, and thin; wings, hen-pheasant's tail mixed with a few fibres of brown mallard feather; legs, which are long and few, of a brown-red cock's saddle-feather. Hook, Nos. 7 and 8. This is an excellent evening fly when ribbed with gold.

Many of the spring flies will kill in September, after which no angler should fish for trout until spring returns again. In October, and during the finest hours of very fine winter-days, grayling are to be caught with the artificial fly, and the best are unquestionably duns, blacks, and browns. That fish being, during the above season, in fine condition, will be caught with the gentle and, by sinking and drawing, with the artificial grass-hopper. It will also rise well in October at the red-palmer, the soldier-palmer, and house-fly.

The seven following flies are exclusively Mr. Blacker's patterns: they will be found universal killers. The fly which is called the 'winged

larva' is a recent invention of that clever artist: it will be found the best general fly extant, and, when made by him of different sizes, will supersede many trout and salmon flies hitherto favourites. I have the greatest faith in its virtues:—

No. 64. *The winged larva.*—This fly is double-bodied, the first being very short and made of fiery brown mohair wound on the hook up to the wings; the second body, from which the fly takes its name, is made of the shrivelled larva of the silkworm, found attached to the refuse ends of gut. It is to be placed beneath the mohair body, and to extend from the setting on of the wings to the bend of the hook which it hides. Its tail is formed of two fibres of the golden pheasant's neck-feather; its wings are mixed of hen-pheasant's tail and grey tail-feather of the partridge, and when used for salmon there should be two 'toppings' in the wing. Legs, a woodcock's hackle, and for salmon a fiery brown cock's hackle; head, bronze peacock's harl. This famous fly can be dressed on from a No. 4 and 5 salmon hook, to a No. 10 trout hook.

No. 65. *The amber-fly.* — Body, cinnamon-brown mohair; wings, mixture of the red and grey tail-feathers of the partridge; legs, an amber hackle struck on from the tail to the shoulder. Hook, Nos. 9 and 10.

No. 66. *The golden olive.*--Body, golden olive

mohair; wings, starling's feather varied with fibres of the landrail's wing-feather; legs, golden olive hackle. Hook, Nos. 8 and 9. An evening fly.

No. 67. *Autumn fly.*—Body, bronze peacock harl, with tag of gold-coloured silk; wings, starling's wing-feather and grey tail-feather of the partridge mixed; legs, a black-red hackle. Hook, No. 10. Dressed large and ribbed with gold, this fly is called the 'Governor.'

No. 68. *The fire-fly.*—Body, bronze peacock harl; wings, the top fibres of the 'moon' feather of the peacock; legs, a furnace hackle. Hook, Nos. 9 and 10. This fly should be varied with a black instead of a furnace hackle.

CHAPTER VI.

FISHING WITH THE NATURAL FLY, OR DIBBING OR DAPING.

ANGLING with the natural fly is an appropriate summer pastime, and would not be deemed too laborious by even lazzaroni. It fatigues no muscles, for all the action it requires from them is neat gentle motion. It abhors violence, and is totally *suaviter in modo*. It is a pastime for ladies; for musing listless adolescents; and for the corpulent middle-aged, whose former sharp *gusto* for active sports frequent pectoral lining with good capon has blunted. If it make no calls on the big muscles, it asks activity from the eye and watchfulness from the brain; it requires from the fingers great delicacy of touch, and from the arm the gentlest sort of action. Your object in practising it is to drop a natural fly, fixed on your hook, so gently on the water that the descent will not differ from that of the free living insect. The fly with the hook in it must alight as naturally as if it were one fingers had never touched. To cause it to do so is not very easy; it demands careful guiding and dropping, and sometimes the most finished casting.

Let us see what induces us to have recourse to a sport less exciting than artificial fly-fishing, and more troublesome. Necessity is the mother of substitutes. When the artificial fly becomes next to useless, it is necessary to substitute the natural one, or something else. The weather is fine, hot, and breezeless; the water placid; the May-fly, or other insects, are abundant on its surface; and fish of various sorts are stealthily rising, causing eddies—the Scylla, Charybdis, and Maelström of those reckless navigators, the ephemeræ, and other water-loving tribes. You see what the fish are about: you guess that your artificial fly will not beguile them, and you therefore flee for help to the natural one, making it effective by an artificial sting you add to it. The addition of this sting requires attention; it must be so added as to harm as little as may be the living insect. The less it harms it, the more harmful it will be to fish. Besides, there are places, no matter how favourable the weather may be, so opposed to facile throwing with the artificial fly, that you must substitute dropping or dipping with the natural insect. You will see large fish rising under bushes and branches of trees overhanging the water, from under shelving banks and rocks, and in divers difficult spots where the artificial fly cannot be safely cast; and a moment's thought will tell you that the best way to reach these

sheltered fish will be by the cunning use of a living insect.

The first thing you have to learn is the best way to insert your hook in the insect, so as to injure it and impede its natural motions as slightly as possible. There must be no roughness employed in the operation. The insect must be handled tenderly, and the hook inserted so as not to puncture any mortal part of your frail bait. If you use but one fly, insert the hook under one of its wings, bringing it out between them at the back. If you use two flies, carry the hook through the upper part of the corset between both wings of one fly; and then, taking another with its head reversed, let the hook enter under one of its wings, and come out at its back. This double head-to-tail bait is a very good one. If you are fishing in open water, with a breeze blowing, your winch-line must be of floss-silk, and your foot-line of about a yard of very fine gut, or of a couple of long links of horsehair. Without casting, and by keeping the breeze to your back, holding up your rod and letting out your blow-line, you can easily manage to make the wind carry it to the spots where you see fish rising. When you dip beneath bushes, your ordinary silk and hair winch-line will do, with a foot-line of gut. By twirling in your hand your rod, twist as much line about its top-pieces as you want; and then, inserting its

point through the branches, as far as requisite, twirl it round reversely so as to uncoil your line and to drop your natural bait gently on the water.

You can cast or throw the natural fly, but not so well as the artificial one. Use a long rather stiff rod, with a long taper casting-line, long enough to use without having much of your winch-line out. Cast with a gentle motion of the forearm, bringing round your line softly; avoiding anything like whipping-violence, and making your bait float on to the surface of the water. Where the river runs uniformly narrow, use no winch, but attach your casting-line to the top joint of your rod, and you will be able to throw, without whipping off your bait.

The drake season, that is, the season of the May-fly, from the middle of May to the end of June, is the best period for dibbing, and the May-fly is the best of all baits. We insert on the opposite page a cut of an angler intent on this sort of sport: you see how he hides himself, and how deftly he has dropped in his hook and line between the branches.

At the period just mentioned, dibbing with the May-fly is quite a rage in the midland counties. We have then seen the Dove, and other streams of Derbyshire and Staffordshire, swarming with the May-fly, and their banks thronged with anglers of all ages and sexes, dibbing with

it. Trout and grayling will scarcely take any other bait. They gorge themselves with the May-fly, and thrive admirably on the nourishment it affords. When towards evening fish are satiated with the May-fly, they will eagerly take, by way of change, house-flies and moths.

In dibbing you must keep out of sight of the fish, and cause as little disturbance as possible. You will observe that trout do not jump briskly at the May-fly, but rise at it noiselessly, suck it in, and swallow it; and that they take that fly generally as it is fluttering on the surface of the water, preparatory to flight. They take it so, but they frequently take other flies just as they

drop on the water, and others as they sail along its surface. Large fish seldom jump at an insect which is on the water; they rise up to it, and inhale it, if I may use the word, through the water. Observe this operation, and just as it is being completed strike at your fish. As your rod and other tackle are strong in dibbing, do not give your fish much play; keep him on the top of the water, his head out of it if you can, and you will soon tire him.

Several sorts of insects besides flies are used for dibbing, such as cockchafers, beetles, bees, ants, moths, grasshoppers, &c. Flies, however, are the best for trout. The May-fly, March-brown, stone-fly, oak-fly, house-flies, and moths towards evening, are those most eagerly taken by them. The grasshopper is a most deadly bait for grayling and chub.

There is a little book, called the 'North Country Angler,' and written by a north-country-man, which contains much sound information upon dibbing. The writer seems to have been a sort of poaching angler, taking an especial delight in using the most killing baits, and caring very little whether the method he adopts or recommends be sportsman-like or not. He would no doubt estimate sport by the number or weight of fish killed, and not by the difficulty experienced in killing them. We will take him, however, as

a guide to a certain extent. He is a practical man; but, like the generality of local anglers, who have had no opportunity of measuring themselves with ubiquitous ones, he is full of conceit, and thinks himself an angling Admirable Crichton.

He says: 'I generally begin fishing in the shade or under bushes in May, and continue it all the three following months, which we call the four hot months. Most anglers in those months fish only in the mornings and evenings, unless the sky is cloudy, and there is a brisk wind on the pools; for there one may have very good sport, and kill large fish. In these months, when there is no wind and the sun is shining, from about ten o'clock in the morning till four or five in the afternoon is the best time for shade-fishing.' The author then describes the fittest rod; but on this point he is not so good a judge as Mr. Blaine, who rightly says: 'A long and firm rod of twelve, thirteen, or fourteen feet, with a very stiff top (a light, long, minnow-spinning rod will be a good substitute), is necessary for dibbing or daping—the length to be suited to the situation; if it be a very close and confined one, eleven or twelve feet are sufficient; but we rather recommend that the rod be of the general length, and that the reel, instead of being attached to the butt, be fastened on the second joint, when, by taking off the butt-end, the rod can be shortened as occasion suits. A reel

is not thought requisite by the North Country Angler; but it is evident that in no fishing is it more wanted than in this, where it is required to lengthen and shorten the line according to circumstances; as, for instance, where, from a length of seven or eight yards, it must be reduced to one, or even less, and sometimes even to be wound up altogether, that it may be insinuated through trees and bushes; and in such cases how can it be so well done as by a reel?'

The above question the Northern Angler answers thus:—'Your line should not be above a yard long; and, where there is some difficulty in getting your rod-top through the bushes, not above half a yard, which, when baited, you may wrap loosely seven or eight times about the rod-top; and when you have thrust it beyond the bush, turn your rod round as many times, and let your bait drop into the water. There is a great deal of caution necessary in managing your rod and line. Some pools are shaded only here and there with a bush or two; in such places you may fish with a line a yard or more long; but you must be sure to make your approach to such open places cautiously, for the great fish lie very near the top of the water watching the fall of flies or other insects from the bushes where they are bred or harboured; and though you do not see them, yet they will see you at your first

coming, and scud away into the pool, and not return perhaps in an hour's time. I have often been agreeably amused sitting behind a bush that has hung over the water two yards or more, and observing the trout taking their rounds and patrolling in order, according to their quality. Sometimes I have seen three or four private men coming up together under the shade, and presently an officer, or man of quality, twice as big, comes from his country-seat, under a bank or great stone, and rushes among them as furiously as I once saw a young justice of the peace do to three poor anglers; and as I cannot approve of such proceedings, I have, with some extraordinary pleasure, revenged the weaker upon the stronger, by dropping in my bait half a yard before him. With what an air of authority and grandeur have I seen the qualified—what shall I call him?—extend his jaws, and take in the delicious morsel, and then march slowly off in quest of more, till stopped by a smart stroke which I have given him, though there is no occasion to do so in this way of fishing, for the great ones nearly always hook themselves!'

All said by this authority generally refers to dibbing about and under bushes, and so far his advice is good. Do not follow him when you dib in open water. There use a winch and blow-line, and short foot-line, and with a slight wind you

will be able to convey your bait to any spot you fancy. If the weather be too still for the use of the blow-line, try and cast your insect gently, as you would your artificial stretcher when you do not wish to make any—the slightest disturbance —in low, smooth, clear water.

I must quote a few lines of the North-countryman again. He remarks justly that, 'Although the shade of trees and bushes is much longer and greater on the south side of the river than on the north, yet on this latter side I have always found the most and the largest trout. I suppose the sun being more intense and warm on the north side, with its southern aspect, may occasion more flies, erucas, and insects of various sorts to creep upon those bushes, and consequently the more fish will frequent them. Where the trees or bushes are very close, I advise the bush-angler to take a hedging-bill or hatchet, or in want of that his sporting knife, and cut off two or three branches here and there at proper places and distances, and so make little convenient openings, at which he may put in his rod and line; but this is to be done some time before he comes to fish there. If you come to a woody place, where you have no such conveniences, and where, perhaps, there is a long pool, and no angling with the fly, or throwing the rod, there you may be sure of many and large fish. For that very reason I have chosen such places,

though very troublesome, where I have been forced to creep under trees and bushes, dragging my rod after me, with the very top of it in my hand, to get near the water; and I have been well paid for all my trouble. Whilst you are getting in your rod, throw a brandling or grub, or what you fish with, into the place, which will make the fish take your bait the more boldly.'

The grasshopper is a most valuable bait for dibbing for grayling and chub. The former fish will take an artificial grasshopper well, by sinking it in the water and drawing it up gently to the surface. The natural insect is the best, however, for chub. On the next page is a representation of an angler intent on dibbing for chub.

You see that he is hiding himself as much as he can; and thinking that there are fish peering from beneath the leaves on the surface of the water, he drops his bait first on one of those leaves, and then by a sliding motion causes it to slip off, and fall on the water. The fish, taking this fall for a natural one, is not scared, but seizes the bait boldly. Practise a similar *ruse* whenever you can—wherever there are branches hanging over the water, rocks, or other substances in it and above the surface. On them first drop your bait, and by a second motion cause it to descend on to the surface of the water. Do this whether your baits be grasshoppers, flies, caterpillars, beetles, or

any living thing liable to be blown or fall from banks, branches, leaves, rocks, roots, or piles into

the water. I need not explain—it is apparent—the rationale of this practice. You must see that you are following nature. In fishing with the grasshopper, let your hook be whipped on with green silk on a link of fine gut, stained a light green colour.

In dipping for trout and grayling with the May-fly or stone-fly, Cotton says: 'To bait with either a stone-fly, or a green or grey drake, put two or three on the hook together, which should be carried through the thick part of the fly's body

under the wings, with their heads standing different ways: pass your hook through them under the wings, about the middle of the insect's body, and take care that your fingers are always dry when baiting, or you soon kill or spoil your bait.' The following bait I confidently recommend:—Make a pair of wings of the feather of a landrail, and on the bend of the hook put one or two caddies. The head of one caddis should go up close to the wings. Angle with a stiff rod about fourteen feet long, a foot-line eight feet, and a hook No. 5 or 6. Let the bait float down the stream just below the surface, then gently draw it up again, a little irregularly, by shaking the rod, and if there be a fish in the place it will be sure to take it. If you use two caddies with the wings, put the hook in at the head and out at the neck of the first, and quite through the other from head to tail. Two brandlings, or small red worms, may be fished with in the same way.

Many are the precautions recommended to be adopted in dibbing. The chief are to keep beyond the sight of fish, and when you have hooked one to get it out of the water expeditiously with as little disturbance as possible. As dibbing is not always to be practised behind the friendly shade of bushes or trees, the angler is often forced to content himself with the resources of the bank he stands on, to which he should creep on his hands

and knees. In some cases, it is true, he may procure the shelter of a hurdle interwoven with boughs, or he may adopt some similar artifice; but many cases must occur where he can trust to concealment only by prostration, or stooping low.

I place this chapter immediately after those connected with artificial fly-fishing, for which I consider it an occasional substitute, necessitated by locality and the state of the water and weather. He who has become accomplished in the practice of artificial fly-fishing, will quickly become an adept in the gentler exercise of angling with the natural fly and other living insects.

CHAPTER VII.

TROLLING. — RODS, LINES, TACKLE, AND BAITS, AND METHODS OF USING THEM.

In England proper trolling is practised to perfection. It is somewhat depreciated, because as yet not well and generally understood, in Ireland, Scotland, and Wales. In those countries fly-fishing is everything, and in them it is certainly better and more generally practised than in England. The English, however, are rapidly becoming good fly-fishers. Let me hope that the Irish, Scotch, and Welch are as rapidly growing good trollers and spinners. If they follow my instructions they have nothing to fear, and will find that trolling is occasionally productive of average angling pleasure. When neither fly-fishing nor bottom-fishing can be practised, in consequence of certain forbidding circumstances of water and season, trolling can be resorted to as a first-rate substitute. The largest-sized river-fish are killed by trolling, and I have no doubt that this mode of angling would prove very successful in the sea. A knowledge of it must be a great resource to the angler who visits foreign climes, and there dwells by large rivers and wide lakes. Numerous letters addressed

to me by Englishmen sojourning by the lakes in the North of Italy, as well as on the banks of the lakes and rivers of several parts of Germany, in which immense trout are found, have assured me of their success by means of trolling, and particularly by practising that branch of it which is called 'spinning.' They have frequently killed from six to ten very large trout, as large as salmon, before noon, by spinning with the bleak, gudgeon, or some other small fish. Trolling is very successful in taking the gigantic trout of the New World. An angler finding himself without the delicate tackle necessary for fly-fishing, in some remote part of the world where fish abound, may, if he have a few hooks only and anything to make a line with, very soon cut a rod out of the next wood, ring it, adjust his hooks into a flight of spinning-tackle, and work away successfully with this rude gear. Towns are generally built by large rivers, and most of the latter, in this land of ours, breed pike, and some of them, like the Thames and Trent, very large trout. Such fish generally refuse the fly, are seldom taken by bottom-fishing, but commonly fall before the prowess of the troller. I have just mentioned a few of the inducements that ought to lead us to cultivate the art of trolling, particularly as it is not surrounded with difficulties, and as it is a smart exercise, requiring as much

activity and vigour to be called into play as is conducive to hardy health. The fish most commonly killed by any sort of trolling in our rivers are pike, trout and perch—the best fish they produce; and that is a sufficiently strong recommendation of it. I divide trolling into three parts, viz., sinking and roving, trolling with gorge and snap-hooks, and lastly spinning.

SINKING AND ROVING is easily practised, and, at times, with capital success. It is done with a live bait: a minnow or a loach for the common trout and perch; bleak, gudgeon, dace, or roach for pike or large trout. Small gudgeons are excellent for moderate-sized Thames trout and perch—large gudgeons for the monster trout and pike of that royal stream. The best general bait for all sorts of trolling is the gudgeon. It will be refused sometimes, and the preference given to small trout, dace, or roach; but the caprice will not last, and pike will soon return to their favourite gudgeon repast.

In practising sinking and roving, I would have a strong long bottom rod, with good winch, and prepared platted-silk trolling-line; for foot-line, about a yard and a half of the best gut. The link to which the hook is tied should be of fine gimp, if you expect pike as visitors; but gut, or three-twisted hairs, will do for trout and perch. You must plumb your water, so as to have a

good notion of the average depth, and you must put on a heavy float accordingly. If you fish with a live minnow, the float need not be heavy; but if you angle with a large gudgeon, &c., your float must be sufficiently large to prevent either your gudgeon, dace, or roach from lugging it beneath the surface of the water. The float is chiefly used to prevent whatever live-bait you may use from sinking deeper than you deem advisable, but neither it, nor the lead on the line, should be so heavy as to hinder your bait from swimming horizontally on any side. You lead your line also, but for a different object—viz., to keep down your bait, and to prevent it from swimming up to the surface of the water. Generally speaking, you so place your float on the foot-line that the length of the latter on the hook side will equal half the depth of the water you are fishing in. Observe this ratio in somewhat shallow waters—three feet deep, a foot more or less. In deep waters, where the largest fish roam, you must sink your bait more deeply, about two-thirds or more of the whole depth.

You must angle with strong, lively baits, and put them on your hooks with as little injury to them as possible, that they may swim about actively and for a long time, and appear unlike captives to the fish you wish them to captivate. Generally speaking, you will find a single hook

answer—its size to be proportioned to the bait: small for the minnow, large for the gudgeon, and still larger for the dace or deep-breasted roach; and you must insert it by the root of the back fin, on the side of it towards the shoulder, between the skin and the flesh. Some insert the hook through the lips; but I do not fancy that way, as it impedes the motions of the bait, and speedily exhausts its vitality. When the bait is hooked on near the fin, it would be advisable to penetrate a slight portion of the flesh with the hook, to prevent the bait escaping by its own efforts, or to be snatched off with impunity by hasty pike or perch. Hooks used in trolling should not be coloured blue; they should be allowed to remain bright, like steel as they are. They should be whipped on the hook with white silk, the wax used being of the same colour.

In sinking and roving, allow your bait to swim here and there, generally at mid-water, but in deep places, deeper, drawing it up gently to the surface now and then, letting it sink again, and guiding it to the best-looking spots of the locality. Your float will soon inform you of a run, and you must strike pretty promptly, unless when the run is that of a pike. Then you must allow the pike to swim away with the bait, and pouch it before you strike. From five to seven minutes is the pouching time allowed by me, and I find it quite

long enough: some excellent anglers allow ten minutes. That length of time can only be necessary occasionally, when fish not voraciously hungry are but playing with the bait, and even then I frequently strike in a very short time, lest the fish should not pouch the bait at all, but blow it out of his mouth after having examined it by the sense of touch, and perceived something suspicious about it. For my own part, except in trolling with the dead bait, I seldom allow pouching time at all, but strike as soon as I find my hooks are within the fish's mouth. I very seldom miss, nor do I think any good striker would often fail to hook his fish by a stroke, simultaneous, but slowly so, with the bite of pike, perch, or trout. Pike is the only fish that should be allowed time. Trout and perch should be struck immediately—stopped by a smart check as they are darting off with their prey. Their run is quicker than that of pike, which frequently swim off very leisurely with the bait in their mouth, to pouch it in peace in some tranquil haunt. You can, therefore, generally distinguish what sort of a run you have; if it be a trout-run, strike quickly—if a pike-run, give time. The question of time is important, and still remains doubted and discussed.

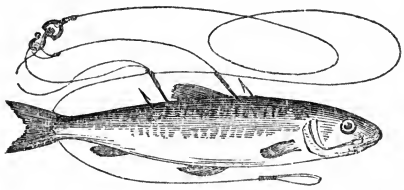
When you have a pike-run, and the fish makes away for a convenient retreat wherein to swallow the bait, you must allow him to move off with

the least obstruction possible. Lower the point of your rod, and uncoiling with your left hand the line from the winch, give it out freely as the fish moves, so that he may feel no check by a tightened line. Do nothing to disturb him whilst pouching the bait, and after you have struck him, play him according to the rules already given and by those mentioned hereafter.

The following lines, embodying the opinions of more writers than one, touching the time of striking at pike, are worthy of attention. When you have a run, or, in other words, when a pike or jack has seized your bait, lower the point of the rod towards the water, and at the same time draw the line gradually from the reel with your left hand, so that nothing may impede or check the progress of the fish in carrying the bait to its hole in order to pouch it. Do not strike until the pike has had possession of the bait about seven minutes, or till the line shakes or moves in the water; then wind up the slack line, and turn the rod, so that the reel may be uppermost instead of underneath, and strike, but not with violence. Mr. Taylor, in his (to a certain extent) useful book, says: 'The pike will, as soon as he has seized a bait, run to his hold to pouch or swallow it: allow him, therefore, five minutes to do so (unless the line slackens before that time, which is a signal that he has already done it), and then strike.

But if after he has run off with the bait, he makes scarcely any stay with it at his hold, but goes off with it again, you should not strike him until he has rested a second time, allowing him still about five minutes; but if he should run off again a third time before the five minutes are expired, draw a tight line, and strike him instantly.' In fishing with snap-hooks or spinning-tackle you must strike immediately the fish has taken your bait. Of these tackle I shall write more fully by-and-by.

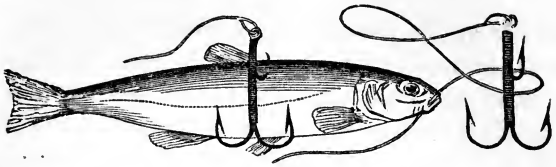
There are many ways of baiting for sinking and roving, and several sorts of tackle sold for the purpose; but the following cut represents the best. It is from Blaine's 'Encyclopædia of Rural Sports:'—



You will perceive by the preceding illustration that two hooks are used; they are to be strong, yet small, though the size of the bait be large. Each is to be tied to a stout piece of gut three inches long, and looped at the upper end. The

lengths of the pieces, when looped, should be exactly equal, and each loop should be fastened in the hook of your swivel attached to your gut foot-line. One of the hooks is to be inserted in the back of the fish just before the dorsal fin, the other hook just behind it. The hooks are to point different ways; and if they are properly inserted, and their gut links of equal length, the fish will hang in easy and just balance, and there will be no drag either way to prevent it from swimming freely. A live-bait so hooked cannot escape by its own struggles, and neither pike, trout, nor perch can snap it off with impunity.

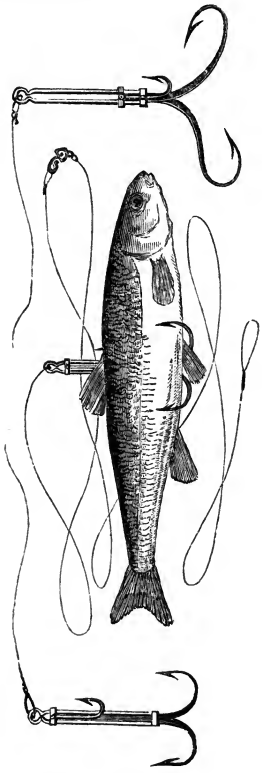
SNAP-BAITS.—These hooks and baits are mostly used at seasons when pike do not feed with sufficient voracity to pouch their baits promptly. Their merit lies in allowing the troller to strike quickly, before the fastidious fish, suspecting something wrong, has time to eject the bait from his mouth. The rod used must be short and stiff, to enable you to strike promptly and firmly; and I know of no rod more suitable than that which is called the Thames punt barbel rod. Snap-baits are two-fold—one which does not spring when you strike a fish, and the other which does. I will give you representations of each, taken from Mr. Blaine's work. The first is called the live-bait snap, figured thus:—



You see that it consists of three hooks, two large ones tied back to back, with their barbs pointing different ways, and one smaller hook tied on at the top of the shanks of the others, and pointing straight out from them. You can tie them yourself thus:—Take two strong hooks, of size No. 3 or 4, according to the strength of their wire, as well as the size of the bait. Tie each to about an inch and a quarter of fine twisted wire, and again tie these two wires together, including in the tie a hook, No. 8 or 9, and also eight or ten inches of gimp, which loop at the other end; but in tying, place the large hooks contrariwise, so that one may point towards the head and the other towards the tail of the bait-fish, which will greatly increase your chance of success. To bait with it, enter the small hook under the back-fin, and allow the two large hooks to apply themselves close to the side of the bait, with the direction of their points reversed, as you see in the engraving. In good-sized roach, or dace, snap-hooks can be better concealed than in small fish of little pectoral depth.

The Spring-snap is generally used with a dead bait, because it cannot be inserted properly in a

live bait without doing it disabling injury. It requires deep insertion in the bait, to allow the spring to act, which it will not do without some considerable resistance.



The spring-snap, not baited and baited, is shown above.

If you examine the tackle prefigured, you will perceive that the two large hooks project from a double elastic shank, flat and split, and which slides up and down between two perpendicular wire pillars. They are attached, as well as a small hook, to a movable band above, and when suddenly and sharply pulled downwards below the band beneath, the elastic shank separates with a strong spring; and the result is the insertion of both hooks, or at least one, within the mouth of the fish that seizes it, and at which you sharply strike.

In the spring, summer, and early autumn months, pike are shy, and fond of basking near the surface of the water; and if, as Mr. Blaine says, 'one of them does seize the bait at these times, he is apt not to pouch or gorge it, but, after roving about with it in his mouth for some time, he ejects it or *blows* it out, as anglers term it.' Hence, then, the utility of snap-hooks, to meet by prompt striking the snapping, and not the gorging, of pike.

Captain Williamson says: 'At such times they will seize a bait with great seeming eagerness, but for the most part relinquish it almost instantaneously. When jack are thus shy, the angler must take them at the snap—that is, he must be quick in striking so soon as the bait is seized. This requires a particular apparatus, whereby the fish

rarely escapes under proper management. The snap-tackle may consist of a single hook, large and stout, which, being fastened to strong gimp, is inserted at the mouth of a gudgeon or other small fish, and brought out either at the middle of its side, or just before the vent. The treble snap is by far the best, being made of three such hooks tied back to back fast together, and secured to a piece of gimp; which being inserted by means of a baiting-needle at the vent, and carried out at the mouth, which is closed by a lip-hook, the three hooks being spread into different directions, it is a thousand to one that the jack is hooked.'

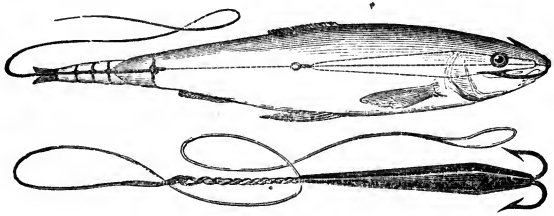
You can make a double snap in the same way. Tie two good-sized hooks back to back; have a sliding lip-hook on your trace. With a baiting-needle carry the trace in at the vent and out at the mouth, and draw until the bends of the hooks are arrested at the vent. Fasten the lips together by inserting through them the lip-hook. This tackle, with the others mentioned, except the spring-snap, is very easily made, and very fit for those parts of rivers in which there are obstructions to the convenient practice of trolling with the gorge-hook, or spinning. Where there are confined holes, waters with piles, weeds, and roots, the snap-bait with short line and rod can be easily

dropped in to tempt the fish that seek refuge in such localities.

The Paternoster line is one containing several hooks whipped on short stiff pieces of stout gut or bristles, so as to project from the foot-line horizontally into the water, and to present divers baits of different sorts and sizes. A plummet is fixed to the bottom of the line, to sink it and keep it steady; and the hooks and baits are placed from a foot to two feet apart, according to the depth of the water. Three or four hooks are quite sufficient for the paternosters used in most of our rivers. The hook nearest to the bottom may be baited with a worm, the one next to that with a live gudgeon or dace, and the highest hook with a live minnow. The paternoster is very successful in the rivers, canals, and docks near London; it is very easily used, requiring little more than close watching. If you wish to fish moving onwards with the current, use a perforated bullet, in lieu of the plummet, at the bottom of your line.

The Gorge-hook.—Until you employ this tackle, you can scarcely be said to troll. The preceding modes of taking fish with fish-baits, though I have placed them under the head of 'Trolling,' do not embrace pure trolling. To troll, you must cast your bait with a coiled line to any distance you propose; and then, by drawing your line in with

the left hand, a certain portion at each draw, you cause your bait to troll, generally towards you, beneath the water. The rolling or rotatory motion of your bait in the water attracts fish to it; they run at it, swallow or gorge it, and then you strike, play, and kill them. Quite the contrary, however, may happen, to your great annoyance. Since it is by trolling with the gorge-hook that the largest pike are killed, I must be methodical and minute on the subject. Underneath is the figure of the common gorge-hook, and above it is a hook baited, both taken from Blaine's great Sporting Encyclopædia :—



Generally the hook is formed of two single eel-hooks, placed back to back, and joined together with a continuation from their shanks of a piece of twisted wire, looped at the end. The shanks of the hooks, and a portion of the wire, are imbedded in a piece of lead rounded thickly at the shoulder, and tapering off towards the tail. Some persons make the lead of an octagonal or quadran-

gular shape, which is objectionable and not by any means so proper as lead roughly rounded. About a foot of gimp is to be neatly attached to the loop in the wire; and when the gorge-hook is baited, the gimp is to be fastened to the hook of the first swivel on your trace. Two good swivels are sufficient for your trace.

The gorge-hook is baited thus:—The loop of the gimp is placed in the eye of a baiting-needle, which is inserted through the mouth of the bait, and the point brought out at the middle of the fork of the tail. Draw the gimp towards you until you find yourself stopped by the bends of the hooks being arrested by the mouth of the bait. The points of the hooks are to be in an upward direction, as you see in the illustrated figure. A thread of white silk whipped round the bait close above the tail, will attach it firmly to the gimp within, and prevent the bait from having its tail-part injured, by being dragged backwards during its progress towards the water.

Many persons do not allow the wire that is attached to the hooks to project beyond the fine end of the lead, where they attach the gimp and bait with it as above. They contend that gorge-hooks are too heavily wired, causing the bait, when cast, to sink too deeply in the water and make too large and loud a splash. The gorge-hooks, with little wire projecting beyond the

lead, are very fit for trolling amongst weeds, and in foul places; but they do not act so well in wide, clean waters, as they have not that necessary stiff and firm hold on the bait, which prevents it from being disfigured by crumpling up in the cast. For ponds and lakes the long-wired gorge-hooks are the best.

Neither barb of the gorge-hook should project too widely from the sides of the mouth of the bait. If the points of the hook do project too widely, the fish may perceive them; if not, at all events they will be likely to get foul of obstructions in the water. Nobbs, the father of trolling, remarks: 'I commonly make use of a single gorge-hook, which strikes as sure as the other. The double hook hath one advantage above the other, that if it meets with such resistance in the water that it loses one side of it, the other part, with a little filing, may be still as serviceable as it was before; it is more troublesome than the single hook in the water, and more apt to stick and take hold of the weeds and roots; it is best for a great bait, for if you put a small and slender bait on a double hook, it will hang out and bear off so much in the bending, that a pike may not only discover the delusion, but if he takes it, it may check him in his feeding, and so hinder him from gorging it.' Mr. Blaine says: 'Some anglers sew up the mouth of the bait after they

have introduced the gorge, which we consider as not very material: the lips certainly conceal the bends of the hook rather better when sewn up than when left open, which is all the advantage gained.' The gorge-hooks should be of different sizes, according to the baits you use, and the size of the baits should be regulated according to the size of the fish likely to frequent the waters you angle in.

A rod twelve feet long is considered sufficiently lengthy for trolling with the gorge-hook. It should be strong, yet light, and made of mottled cane, or of ash for butt, hickory for middle pieces, and bamboo for top. The rings should not be made of wire, but of strong brass or steel. They should be wide, far apart on the rod, and their base should be polished so as to let the line run most freely through them. Trolling-rods are made to perfection by all the chief tackle-manufacturers in London. The trolling-line should be of strong-prepared platted silk, but the line itself should not be too thick. Those of hair, or silk and hair, or mere hemp, are bad, liable to kink, and therefore to run heavily out in casting. Hemp-lines, though oiled or varnished, will imbibe moisture, run out clumsily, and soon rot. A large London-made check-winch is the best to troll with.

To cast your gorge-bait, you must unroll off your winch as much line as you want to reach the

distance you intend to cast to. The line must fall in free coils by your feet on your left side. Take the upper part of your line in your left hand, drawing the bait to within a yard or less of the point of your rod, which lifting, the butt being propped against your right flank, throw to your right or left just as occasion may require; and letting free the line in your left hand, the bait will be carried, the coiled portion of the line running through the rings freely, the length of the line out. The bait having entered the water, keep it about a distance of one-third the whole depth, if the water be deep, from the bottom, but generally speaking at mid-water; and drawing your line towards you by short and gentle pulls, moving your rod in the same direction, try and give to the bait a natural and attractive motion. Do not, unless in case of emergency, lift your bait out of the water, until you have drawn in your line. Then repeat your cast, and go on casting, moving with each cast until you have left no part of the water untried. Your first cast should be into those parts of the water nearest to you, then farther out, and lastly, as far to the other side of the water as you can throw. When you have a run, let the fish move off with your bait, and strike as before directed.

Very various are the methods of handling the gorge-bait. Generally speaking, they are anti-

quated and slovenly. The tackle I have just mentioned will answer admirably, but you may troll in wide waters with a larger rod than the one I have described. Your salmon-rod will do when you have no other, and find yourself amongst the pike-lochs or lakes of our own country or amidst those of any other.

The bait with a ten or twelve feet trolling-rod can be thrown sixty yards or farther. But these long casts or throws are of no use generally, and in making them, as trollers do for parade sake, the bait is injured, and after it has fallen into the water it cannot be put into anything like natural motion for some time. Shorter casts are more effective. Indeed, unless when you wish to reach some far-off spot having some especial attraction, do not cast farther at any time than from twenty to thirty yards. That distance you can handily manage by casting your bait skew-ways to it, causing it to enter the water slantingly; and you can gather up your line before your bait has sunk to the bottom of the water, or got injured by hitching in any obstruction there. The truth is, a trolling-rod can be very easily made. One of those long tapering canes, sixteen or eighteen feet long, specimens of which you see as signs, shooting upwards and over the streets, at fishing-tackle makers' shops, will, by adding to it half a dozen large rings, make an efficient trolling or

spinning rod, by means of which you can cast any reasonable distance, and gather up your line the moment your bait enters the water. Osier and hazel nurseries will afford you long stout saplings or shoots, which, if you cut them in winter, will make useful trolling-rods.

I advise the use of a moderate portion of lead only on any part of the swivel-trace. If the gorge-hook is properly leaded, it will be sufficient to carry and sink the bait without any additional weight more than that given by the swivels. The generality of trollers use too much lead, and troll with too much rapidity. The following trolling axioms are selections from good authorities:—

Swivel-traces are necessary in trolling, for by their means it is that the bait revolves quickly, and has communicated to it a *troll* or *rolling* motion, which assists greatly in attracting the notice of predaceous fish. Some troll wholly without swivel-traces; but we are certain that so doing is a manifest impediment to the spinning of the bait, and we therefore strongly recommend these traces. By means of the swivel-hook the great convenience of readily disengaging the tackle is obtained; but it is to be noted that, in releasing it, the ardent angler sometimes is violent and snaps his swivel, which is a reason why he should never be without spare swivels, or indeed without duplicates of all the minor articles of fishing apparatus.

Gorge-hooks of all sizes and figures are kept in the shops. The necessity of having different sizes of the gorge apparatus is apparent, from the fact that you use it, in trolling for large and small pike, with baits from the size of the minnow to that of a roach of from two to eight ounces. Not only should gorge-hooks be kept of various sizes, but their shape, particularly the leaden part of them, should be adapted to the shape of the fish you use as a bait. The minnow and gudgeon are round enough in shape to conceal a round leaded gorge-hook, corresponding with their size; but for the bleak and roach and dace, which are more flat-sided, I recommend that the lead be somewhat flattened, and be rather of a compressed oval shape than round. Mr. Salter judiciously observes: 'I generally remove about a third of the lead from the brass of those hooks which I find kept ready for sale in the fishing-tackle shops, because I have found when the lead lies nearly the whole of the length of the bait-fish, and especially of a bleak or thin roach, that when the jack strikes it, his teeth pierce through the flesh and touch the lead; he then immediately drops the bait. Now, by removing a part of the lead, as above directed, the angler will find the remainder to be sufficient for sinking, &c. his bait, and that it will lie at the bottom of the bait's throat, or only a little lower;

and as jack generally seize their prey by or across the middle, in such case their teeth seldom come in contact with the lead, and they then retire without fear to their haunts, and soon pouch the whole.'

Mr. Salter and other authorities recommend that when a large pike is struck in open water, you should give him more line, and not pull hard at any time, unless your tackle should be in danger of entangling among weeds or bushes; and when this is the case, the utmost caution is necessary, lest the rod, line, hook, or hold should break. When completely exhausted and brought to the side, take the pike up with a net or landing-hook, or, if in want of either of these, put your thumb and finger into its eyes, which is the safest hold with the hand. When you have hooked a jack or pike, and played him till he is quite exhausted, and are drawing him ashore, make it a rule to float him on his side, and keep the head a little raised above the surface of the water, that the nose or gills may not hang to, or catch hold of, weeds, &c., while you are thus engaged bringing your prize to the shore; for sometimes you cannot avoid drawing it over or among weeds; and we have seen a pike touch and get entangled in this way, and, before it could be disentangled, it recovered from its exhaustion or stupor, and occasioned much trouble and hazard before it could be again subdued.

I think that the seasons for trolling are so well laid down by Mr. Nobbs, the father of trolling, that they may be transcribed without alteration. He says: 'Though the depth of winter cannot be recommended for angling, yet there are some days in December and January that a man may pick out to stand two or three hours by the river-side, but the weather must be open and temperate. The great fish will be soonest enticed with the bait at that time of the year, because they lie deep, and are not so careful of their own preservation. There is another great advantage for the winter troller; the weeds are then down and rotten, which are a great hindrance, both against throwing the bait, and in keeping the fish from the sight of it. Though a pike delights much among the weeds, and usually makes his abode there, yet it is very difficult to take him there, except it be with a snap; for if you give him the liberty of running and playing with your bait, he winds himself so fast about the weeds, that you may be in some danger of losing both your fish and hook, if your line is not very strong. Trolling in January, even on favourable days, when the season is moderate and the water in order, which is rare in this month, is but labour wellnigh lost; for if it is not a flood, yet the ditches and brooks are commonly so rank and full that it is but indifferent fishing. February presents better prospects, and on some days

these fish take a bait eagerly. March too is very seasonable to the troller, except the time of spawning, which usually begins about the middle of it, except the spring is very forward, and then they will be disinclined towards preying. The snap is now the most taking way; for if you fish at pouch you may have many runs, but scarcely take one, except it be a small fish. These two months, therefore, will try the pike-fisher's patience, even though he be wind and weather proof. April will, however, in all probability make him amends for his former sufferings.'

In the latter summer months, and on the fine days in autumn, when the deeps are curled by a fine breeze, pike are to be taken very pleasantly by means of the artificial fly. The best imitation is a very large one of the dragon-fly. Of the season of autumn, Mr. Nobbs says: 'The weather being then temperate, and the weeds, which were strong and high before, are now dying and falling to the bottom. The rivers are then generally low, which is a great advantage, because the fish are more easily found in their harbours. They leave the shallows and scowers, and lodge themselves in pits and the deepest places. A pike is now very firm and fat, having had the benefit of the summer's food; and if the weather continues open, and not extraordinarily cold, you may take in part of November, which will add much to your sport,

because the weeds will be more wasted and rotten; but if a flood comes in October or the beginning of November, you may lay aside your tackling for that season: for great rivers, like great vessels, being long in filling and slowly mounting to their full height, are again long in falling and settling, so that the water will be thick and out of order, unless frost or fair weather comes to clear it. In small brooks and rivulets it is not so; you may fish in them again within a week or less after the flood.'

SPINNING.

Next to fly-fishing, spinning is the most amusing mode of angling. It is a dashing, killing method, and the practice of it requires considerable muscular exertion. The arms in casting, and the legs in moving on and changing ground, are continually and strongly called into requisition. Trout, pike, and perch of all sizes, but generally speaking the largest, are caught by spinning. Salmon, in my opinion and in that of a few others, may be frequently taken by spinning with a real bait or an artificial one. English travellers, carrying with them into foreign lands their sporting propensities, have been very successful, in the lakes of Northern Italy and in those of Germany, in taking immense trout by means of the spinning-tackle. This I know from authentic private cor-

respondence. In America, whether in the United States or in Canada, enormous trout and pike have been taken by spinning. At our own doors we know that, generally speaking, all the large Thames trout are taken with the spinning-tackle. It is active angling, not of course so refined as fly-fishing, but it deserves every attention on the part of those who wish to become accomplished anglers.

In spinning you cast pretty much in the same way as you do in trolling with the gorge-hook. Spinning-rods are magnificently manufactured in London, and I like those best that are made of East India mottled cane, for they are strong, light, and of handsome appearance. They are generally about twelve feet in length; and with a rod of that length, ringed in the modern manner, not with wires, but with strong, hollowed-out pieces of brass, and with a thin hard-platted prepared silk line, you can throw your bait to a distance of sixty yards—a distance, however, too far to throw, except on trying occasions. For my own part, I would have a spinning-rod made of a single piece of this mottled cane, fourteen or sixteen feet long, well-ringed, with a screw winch, requiring no winch-fittings; and though it may be awkward to carry (the only sound objection that can be made to it), the advantages it would offer are very considerable. You can cast wel with it, gather quickly up your line immediately

your bait enters the water, strike your fish better with it, and play him when hooked in a satisfactory and artistic manner. With a rod of this description, you can troll for salmon and large trout in the deepest and widest waters. In narrow streams you can spin with a very small portion of line out, and almost avoid casting; the length of your rod allowing you to drop in your bait noiselessly, wherever you like, and spin it accordingly.

Your bait spins by means of swivels on your foot-trace, and by a bend given to your bait close by the tail. The spinning or revolving motion communicated to your bait as you draw it towards you, makes it, no doubt, exceedingly attractive to fish of prey. It seems then to fly madly for its life, though it has none. Predaceous animals of all sorts rush with might and main after the prey that flees with the most timid fleetness from them. The hawk darts at the frightened lark, the greyhound outstrips the wind, urged on by the fearful strides of the craven hare.

Various indeed are the sorts of spinning-tackle recommended by anglers. The great merit for which they are recommended is generally that they spin well, viz., that you can show the bait in the most seductive runaway shape to the fish you wish to beguile. The second merit is, that the flight of hooks is so well placed, as to prove a deadly thorn to the gentleman that dares to

pluck your rose. I can scarcely recollect exactly the varieties of spinning-tackle that I have seen, dozens and dozens having been sent me for my examination and judgment. On the whole I have found them too intricate, the flights, as they are called, being composed of too many hooks. I will mention some of the best of them, but first describe those I think the best of all. In the subjoined engraving you will see them represented:—

1

2

3

The first, you perceive, is a flight of hooks, with which, according to its or their size, you may arm or bait with minnow, bleak, gudgeon, dace, or roach. The length of your flight must be regulated by the length of the bait-fish you use—a minnow for the common trout and perch; large gudgeons, dace, and roach of from four to six ounces, for large trout and pike. This flight consists,

you see, of no fewer than eleven hooks, that is to say, three treble ones and two single ones. The first single hook on the left is a sliding one, and is called the lip-hook, because it is inserted point upwards through the lips of the bait to keep them close. The second single hook, with its barb pointing downwards, is placed next to the last treble hook on the right-hand side of the page. When you use this flight of hooks without either of the additions, numbered 2 and 3 in the plate, you bait with it as follows:—Insert one of the last treble hooks close to the tail of the bait, and curving that part of the bait a little, keep it on the curve, by inserting tightly the next single hook in the bait higher up from the direction of the tail. The proper insertion of this last hook will keep the tail-part of the bait bent. Next insert one of the middle treble hooks in the upper side of the bait, without any drag on or bend in it in the region of the vent, and then insert one of the treble hooks (one of those next to the lip-hook) in the bait by one of the sides of the back-fin, and lastly finish baiting by inserting the lip-hook through the lips of the bait. No part of the bait should be strained in its shape by the insertion of any of the hooks, except that single one which is used to give the bait a bend near the tail. Every other part of the bait should lie straight. A flight of hooks of this description

should have at least two swivels on its trace, that part of it within ten inches of the bait being moderately leaded.

Now examine figure 2 in the cut. It is a piece of flat brass-wire, arrow-shaped at one end, leaded and looped at the other. Give it a small sharp bend near the arrow-head, and pass that head in at the mouth of the bait, and down through the middle of the body to the tail, but not out at it. The leaded portion of the wire, if the whole is properly placed in and adapted to the bait, will lie in its belly, and the exterior of the looped portion will lie even with the lips of the bait. Take your flight of hooks now, and, leaving your last treble one 'fly,' or not inserted in the bait, but projecting a little beyond the tail, insert your downwards-pointed single hook in the side of the bait between the vent and the tail, not straining or dragging any part of your bait; and then insert one of the middle treble hooks in the neighbourhood of the vent above it, and your first treble hook, on the left side of the cut, insert near the back-fin; then finish by inserting the lip-hook through, first, one lip of the bait, then through the loop of the wire, and lastly through the other lip of the bait. A moment's consideration will show the reader the advantages of a baiting apparatus of this kind. The wire, bent and passed as directed, keeps the bait stiff and sufficiently bent

near the tail, and the leaded part of the wire renders the bait sufficiently heavy for casting it the distance and sinking it the depth required. The texture of the bait, receiving additional support from the wire and lead in the bait's interior, is less easily torn in the process of casting or spinning it through the water. The bait is held extended, and cannot be dragged double by the strain of the hooks, which frequently crumples up and spoils a bait, having no such interior support. When you use this leaded wire you need put no additional weight on your swivel-traces. This sort of spinning-tackle I am exceedingly partial to.

The figure 3 in the cut is a recent and useful invention. It is a piece of wire with an artificial fish-tail affixed to it. The divisions of the tail are turned different ways, like the tail of the assassinating Archimedian minnow, invented by Mr. Frederick Allies, of St. John's, Worcester. In passing through the water, and against it, a tail thus divided and inverted gives the bait a regular rotatory or screw motion, as you draw it towards you. It is partly an artificial and partly a natural bait. I have a good opinion of it. In using it, cut off the tail of the natural bait, and, entering at the cut end the point of the wire, pass it through the body longitudinally, and out at the mouth. The artificial tail now takes the place of the na-

tural one, and the wire through the body keeps the bait-fish firm, straight, and in its natural shape. You now insert the flight of hooks exactly as I told you to do, when using the arrow-headed wire. This bait will swim and spin admirably, not be liable to tear: and if the artificial tail be made with care, it will not glaringly disagree with the natural body of the fish.

As I have already said, I am not partial to a many-hooked spinning-tackle, and I especially dislike them for spinning for trout or other fish weighing under two pounds. I can spin a minnow very prettily and very attractively with a flight of only three hooks—that is, one double hook to remain at the vent, and one single lip-hook. I use this flight with the apparatus numbered 2, or with that marked 3 in the cut. Either of the above apparatus having been passed into the body of the bait, I insert the loop of a link of gut, to which a double minnow-hook is tied, in the eye of a baiting-needle, which I pass in at the vent, and through the stomach of the bait, out at the mouth, drawing to the gut until the double hook, arrested at its bend by the vent, stops there with its double barbs apart and pointing downwards. I take away the baiting-needle, and slipping down on my gut a moveable lip-hook, I pass it through the lips of the bait tightly to make taut the small portion of the gut that is in the interior of the

bait, between the vent and the mouth, and I finally fix this gut-link that contains the bait thus armed to my swivel-trace. I have now a bait that swims well, with a double hook projecting on each side beneath the middle part of it; and as fish generally seize their prey by the middle, I do not see why you should not seize them with this double hook, if they once admit it within their mouths. However, as fish very often run short at the spinning-bait, and as, when they do, you cannot hook them by means of one double hook only at the vent, add a double fly-hook to lie along the bait towards the tail, and a little beyond it. I advise my young friends to use this latter tackle when they begin practising the art of spinning; they will find it very efficient, and it is very easily baited.

I have mentioned the trolling and spinning rods best suited, in my opinion, for angling for large fish. We should have an especial rod for minnow-spinning. It should not be so stout by any means as the usual trolling-rods, but it should be longer: fourteen feet is a fair average length. I would have this rod made of the best mottled cane in all its joints, except the top one, which should be of a good stiffish bit of hickory, or solid bamboo, tipped with a couple of inches of light whalebone. This rod should be ringed with moderately-sized upright rings, and will answer, if

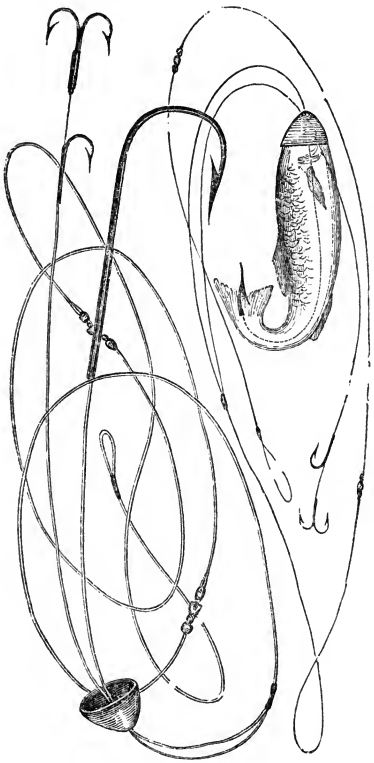
well made, for bottom-fishing with the worm or gentle, for dibbing or daping, and particularly for angling with a tripping bait, as well as for minnow or bleak spinning.'

Mr. Blaine says: 'The minnow spinning-rod requires length and strength, combined with lightness, which requisites appear best obtained by having it made of cane, except the last joint. It must be neither too flexible nor too stubborn, as either extreme will impair its utility: if too stiff, the hook or the hold will be endangered when striking; if too pliant, it will yield to the resistance of the water too much to allow a ready stroke to be made when a bite occurs, and the fish will escape ere the effect of the stroke reaches him. The first delivery of the minnow on the water should be delicately done, so as to raise no disturbance in it, either by noise or splash; which is managed by checking the impulsive swing, just before the bait reaches its destination—at the same time dropping the hand as well as the point of the rod, which will thus check the bait, and lay it lightly on the water. This effected, begin to draw the bait slantingly across the stream, at various depths, with a certain degree of regularity, observing also to imitate the shootings of the living fish in its actions; and, as Colonel Hawker, in the true spirit of a piscatory tactician, observes, "if a fish comes after your minnow,

never stop it, or in any way alter your pace, or he will most likely be off again directly." More fish are lost by the nervous feeling which shoots through the young angler when he perceives the first rush of a trout, or flinches from or starts to it, than by any other course whatever. If nothing of this kind takes place, the trout sees no cause of alarm, and there need be no fear on the angler's part but that he will himself strike the fish at the regular pace at which he attempted to overtake it; and that being done, it only remains for the fisher to fix the hook, or hooks, within its mouth by a smart stroke from the hand, if possible, in a direction contrary to the progress of the fish.'

Colonel Hawker's spinning-tackle is an excellent one, having only one fault, viz., that young anglers will find a difficulty in placing the bait neatly upon it. I can vouch for its spinning well and killing well. Let it be made of large size, and it will answer admirably for spinning with dace and roach for the largest species of predatory river fish. In introducing this spinning-tackle, the celebrated Colonel observes: 'Trolling or spinning a minnow is a most general mode of trout-fishing, or, I might almost say, trout-*poaching*. It is, however, very rarely done in a proper manner, though every man, as a matter of course, upholds his own system. I, like all the rest, did the

same till, after fancying for years that I could challenge anyone, I was beaten and laughed at by a trout-killing divine.



'I have got master at length of his plan, against which all others that I had ever seen,

read of, or heard of, had no chance whatever. The great advantage of it is, that it takes the trout, when they run and bite short, by means of fly-hooks that play round the other on a separate branch of line; so that I have often killed three or four brace of trout without the minnow being in the least injured, or even touched by the fish. To describe the tackle properly, without giving a plate of it, would be difficult if not impossible.' The cut in the preceding page must be examined by placing it horizontally before you.

Colonel Hawker describes this tackle thus:—'A large minnow trolling-hook, size No. 1, is whipped to the shortest link of gut, and to the other a triangle of three No. 7 hooks,* which are to hang about two inches below the larger one. These links altogether form a harness, which is to be attached to the line with a small box-swivel between them. The perforated snout-lead is, however, first put on. Having selected a white-bellied minnow, of rather small size, and hardening it in bran for

* These hooks hang too low in the cut. The double hook should be where the single one is, and the latter should be about half an inch nearer to the tail of the bait. It is too much the fashion with tackle-makers to tie the fly-hooks at a long distance from the tail of the bait, whether natural or artificial; and the consequence is, that these fly-hooks double back in casting, and get entangled in the hooks inserted in or lying outside the body of the bait.

an hour or two, first draw back the plummet, and put the large hook into the minnow's mouth and out through the right gill, taking care not to tear any part of the mouth of the bait: then draw the line three or four inches to you, so as to be able to get the hook back again into its mouth. Then take the minnow between the finger and thumb in the left hand, and the large hook in the right hand, and run the hook all down its back inside, close to the bone, to the very end of the fish, and let it come out about the centre of the tail-fin. Then with your right hand pull the minnow out as straight as it will lie, and press it into natural form with the finger and thumb. Afterwards, nip off the upper half of the tail-fin, in order to prevent a counteraction to the spinning of the minnow. Having done this, draw down your plummet (snout-lead) again, and see that your branch-line falls smoothly by the side of your bait-line; and if not, rub it with indiarubber till it does. Your hook is then ready for action; and action, indeed, it may be called, if properly done. I should observe, that new gut seldom spins the minnow so well as that which is half-worn out (by reason of the stiffness which encircles the minnow's gill); therefore, ten minutes' soaking in water, and sometimes a little hard friction of the gut, just above the large hook, may at first be required, besides the working of it with india-

rubber. So much for this plan: there *may* be many better; but all I can say is, that I have not yet *seen* one fit to be named with it.' By studying the preceding cut, and explanations of it, the intelligent learner will be able himself to make such a tackle and use it.

It is supposed by some, that large pike are caught less seldom by spinning than by trolling with the gorge-bait. If the supposition be true, it is because the latter bait is used more frequently than spinning in places where large pike lie, and not because the gorge-bait is the better bait on the whole. I prefer spinning, even for the largest fish, in wide deep waters, clear of obstructions; for I know that by that method the largest pike are to be caught, besides the excellent chance of killing large salmonidæ. The gorge-bait answers best in weedy waters, or in those in which there are hindrances to your spinning freely.

Be cautious how you bait your spinning-tackle. It is not an easy operation; and the difficulty attached to it often deters persons from spinning. Practice will overcome partial difficulties, and even entire ones of far greater intricacy. Commence with the simplest sort of tackle, requiring but few hooks. A practical lesson from some old Thames spinner will advance you more in the art of baiting than twenty written pages. You can

spin your bait up or down stream, across or against it—in fact, in any direction that the nature of the locality may render most convenient. The best way, however, is to spin against the current; for your bait moving in that direction will appear like a natural fish darting away up the stream; and trout, having their heads pointed that way when on the feed, will be the more inclined to rush after the bait. Generally speaking, it is not of vital importance which way you spin your bait, so that you do it well. Take care not to spin too fast, by drawing in too rapidly too much line at each backward draw of the left hand, or at each motion towards you of the rod. Spin steadily, just fast enough to make your bait revolve attractively, but not so fast as to make its speed greater than that of the fish that is pursuing it. Make it no difficult task for him to overtake your bait and seize it with facility. In spinning you must strike, as soon as your bait is taken, with a short, quick, moderately strong jerk of the wrist.

The baits you use in spinning should be of the most brilliant colours—the brightest minnows, gudgeons, dace, roach you can procure. Smelts, on account of their silver brilliancy, make capital spinning-baits; moderate-sized thick-set ones are the best. The hooks used in spinning should be of the bright steel-colour of the wire, not changed to the ordinary blue hue of hooks; and they

should be whipped on with light-coloured silk, waxed with white wax.

The fish you intend for baits, provided you cannot keep them alive, having no bait-kettle or well in your boat to do so, should be killed immediately they are caught, and not be allowed to lie about anywhere until they die. If you suffer them so to lie about, they will lose a portion of their scales, and become less brilliant than they ought to be. Dead-bait boxes are made something like sandwich-boxes, some not divided in the inside, and others divided into little compartments, to keep the baits separate, and so prevent speedy decomposition. If baits are put into bran the moment they are caught, they will soon die, preserve their scales and colour, and last good for two or three days.

Artificial Spinning-baits.—The tackle-shops are inundated with varieties oft hem. They will all kill fish more or less successfully; but the majority of them are inferior to the natural bait. The large brilliant ones will kill in deep lakes, the smaller ones in streams; and I fancy they are most useful when the water is beginning to clear after a flood. The best artificial fish-baits are those called 'flexible,' made by Mr. Flinn, of Broad Street, Worcester.

CHAPTER VIII.

ON BOTTOM-FISHING—RODS, HOOKS, LINES, AND BAITS.

THE ENGLISH are, without doubt, the best bottom-fishers in the empire, and the London anglers the most accomplished of all. We can account for this easily. English rivers are better stored than those of any other division of the empire with the various sorts of fish which seek their food rather at the bottom than at the surface of the water. In the neighbourhood of London such rivers abound with their numerous angling clubs, subscription and preserved waters; and the easily-pleased (only perhaps with respect to his sports) character of the Saxon, be he of the country or city, leads him to indulge, with infinite patience and pleasure, in all the slow minutiæ of bottom-angling, when the inconvenience of distance renders fly-fishing out of the question. Even the fly-fisher from Ireland, Scotland, or Wales, settled in London, stoops from his high art, and, being a lover of nature in her water-side charms, betakes himself to bottom-fishing, and partakes of its amusement in company with the joyous, good-hearted, and really

philosophic cockney. In bottom-fishing, the persevering character of the Saxon is developed. He pursues it with that intensity of purpose that guides him in his greater actions, and renders him capable of performing the highest. He prepares himself for a bottom-fishing campaign, as carefully as if he were starting on a voyage of discovery. He neglects nothing that may tend to his success. The fox-hunter and fowler laugh at him, little suspecting that the very bottom-fisher there, watching his float so anxiously from his punt, may be a first-rate horseman or shot; and that he has the wisdom of being satisfied with amusement at hand, waiting for that which at the present time s not. To be amused with harmless trifles in proper season is the acme of practical happiness—

> When we cannot make love to the lips that we love,
> We can always make love to the lips that are near.

The fly-fisher will very readily become an expert bottom-fisher. He understands already the use, in the most trying situations, of rod, line, winch, and hook. He has a quick eye and a quick and light hand, and will easily apprehend all the arcana of bait-fishing. All he requires to know is the baits he must use, and a hint or two respecting the best manner of using them. He knows already the habits of the salmon family; he will soon learn the monotonous ones of the carp tribe,

the different varieties of which form the principal prey the bait-fisher pursues.

The bottom-fisher's rod must be strong and light, not by any means so springy as that of the fly-fisher. It must taper stiffly, not be topheavy, and be just springy enough to strike a fish quickly without the delay too much elasticity in the top pieces would cause. It must be supple, so that pressure will equalise itself from top to butt. Though its pieces be not so fine or so limber as those of the fly-rod, it must taper with equal precision. The lengths of bottom-fishing rods differ very widely. Those that are used for bank-fishing in wide rivers are sometimes twenty-four feet long; while those for angling from punts are frequently as short as ten feet. They also vary in strength according to the fish one angles for. The average length of a bank-rod should be seventeen feet, that of a punt or boat-rod twelve. With a good general rod, having several tops, which you can change as occasion requires, you may successfully bottom-angle for any species of river fish, roach perhaps excepted, which require a specific rod.

The bottom-lines for bait-fishing should be made of good gut, as fine as is consistent with strength, and it cannot be too fine for roach fishing. Roach-lines, at least that portion of them next to the hook, are often made of single horse-

hair; but gut is better, and can be had fully as fine. All foot-lines should be of the colour of the water, sometimes of a sandy hue for angling after a flood, but generally speaking a very light, transparent green is the best. They should be attached to good, prepared platted reel-lines, and should be knotted and leaded as neatly as possible to avoid catching in weeds or straws that may be swimming down with the current. Grains of shot of different sizes are commonly used for leading lines. I prefer thin strips of sheet-lead beaten to the thinness of writing-paper. You can wind these thin, narrow bits of lead neatly round one or two of the last links of your foot-line, just above the knots or joinings, and it will be far less clumsy and less likely to entangle than when weighted with several shots. You can put on or take off the slips of lead more promptly and easily than shot, and you can carry them more conveniently. Always use a winch in bottom-fishing. It will prevent unequal strain upon your rod, enable you to play a fish properly, and you can shorten or lengthen your line with it according to your judgment with facility. It will enable you, besides, to angle with the shortest and finest foot-line possible.

Hooks for bottom-fishing with worms should be long in the shank and perfectly round in the bend, with the barb and point not inclining inwards.

On such hooks you can easily put your worms without injuring them. If your hooks are sneck-bent you will feel a difficulty in threading your worm, and as you force it up, you will often find the point of your bent hook penetrating through its sides, spoiling the bait in more ways than one, rendering it less lively, and liable to break even by the motion of the water. Hooks for gentles, greaves, paste, and so forth, may be short in the shank, and sneck-bent, for they are more readily covered by the bait, and will not let it slip off so easily as the straightly rounded hooks. All bait-hooks should be whipped on as delicately as possible, with silk the colour of the bait you use, and waxed with almost colourless wax. Hooks should be whipped on from towards the bend, and the whipping should be terminated by a couple of almost imperceptible slip-knots, varnished at the end of the shank. If the beginning of your whipping be rudely done, showing a commencement glaringly thicker than the wire of your hook, an obstruction will exist fatal to putting on your bait easily, and without injuring it, if it be a worm. In general hooks are whipped on too clumsily, with too many coils of the silk, and with the silk too fatly waxed. Bait-hooks have commonly a few nicks made with a file towards the ends of the shanks. The whipping need hardly extend beyond them. The gut should be softened and thinned

by drawing between the front teeth. I mean the small portion of it that is to be whipped on to the shank of the hook.

Floats should be of moderate size. Heavy floats may be used in barbel fishing, but are not absolutely necessary, except when sinking and roving with a live bait for pike. In general I prefer cork floats to quill floats. The latter I never use except for roach and carp fishing. A neat, small-sized cork float is handy, sits well in the water, and is sufficiently light to give you instantaneous information of a bite. For my own part, I frequently fish without a float at all, with a lightly leaded line, and seldom miss striking at a bite. The best bottom-fishers fish for trout, grayling, perch, dace, and even for roach, with a tripping bait without a float. They are quick and sensitive enough to see and feel a bite without the eaves-dropping of a float. A float, however, is a safe appendage, and to be surely relied upon. Notwithstanding, I advise the learner to angle frequently without one, and to depend on the sharpness of his eye and the sensitiveness of his hand. If he do, he will be always able to angle with a very light float—an immense advantage—and to distinguish the slightest fish-pull upon it. Never allow your float to drag in the water. It should sit perpendicularly in it, and the line should rise straight

up from it to the point of the rod, which should hang, whenever it is possible, right over it. The advice in the last sentence is important. Neglect it, and you will seldom strike successfully. I continually see persons angling with their floats slanting in the water, or lying loosely upon it, with the line slack or coiled, and of course I see them miss seven out of every ten fish they strike at. Their baits are frequently nibbled off without their being conscious of it at the time.

In bottom-fishing you must strike promptly with a slight, sharp, wrist-jerk towards you, inclining your hand generally a little to the right. If you miss your fish, and find that in striking you have jerked your bait out of the water, conclude that you have struck with unnecessary force, injuring and loosening thereby the bait on your hook, and causing more pother in the water than fish are used to. Moderate your dangerous strength, and strike so as to lift the bait upwards only a few inches. You need not be a bit afraid, if your stroke is quick enough, that it is too weak to hook your fish firmly. Striking strongly is a great defect, a displeasing one, except to fishing-tackle makers, who thereby get an increase of business in making and repairing. Rods are broken through it, lines and hooks carried away, and fish lost and uselessly tormented and rendered shy.

Your rods and lines for bottom-fishing being less delicate than those used in fly-fishing, you may frequently after a very short struggle lift your fish out of the water. In many instances, particularly when you alight upon a shoal of small-sized fish, you should give as little play as possible, bringing your fish at once to the surface of the water and out of it with all despatch. Barbel and large chub should not be pulled at fiercely at first, but be allowed to sink and run moderately, under a pretty tight bearing-rein, just sufficiently so to prevent them carrying their noses whithersoever they fancy; and when you feel their obstinacy becoming lax, present the butt-end of your rod to them, and try their strength under a shortened and taut line. If you feel there is danger in bearing so hard, relax the strain on your tackle, and indulge your captive with a short swim or two. The weight of the line he will have to drag will clog his movements, and as soon as you begin to bear on him again you will see his head turn towards you, and his enfeebled fins, fast losing their propelling powers, beat the water languidly. Bring his exhausted head above water, and down into your landing net with proper economy of time. In fishing with a single hair-line, you must always cautiously play your fish, very small though he may be. But when with such a line you hook a monster fish,

giant barbel, or chub, or carp, or perch, you must play him with all the careful address and ingenuity of the fly-fisher. An event of this sort will fill you with excitement, charged to the brim with doubt, pleasant suspense, and fear; and if by the *suaviter in modo* you succeed, and you cannot succeed on any other tack, you may commemorate your success by means of a mammoth mummy in a glass case with this glorious inscription: 'Barbel, weight 12 lbs., caught with a roach single hair-line, at Sunbury, July 185–, by . . . . . .' Some sceptic may doubt the truth of this immortalising label, but I should not, knowing well what immense weights art can pull up, and what immense strength it can pull down. In fishing for perch your tackle should be strong, for he is a bold biter, and not to be scared away by a stout gut-line; hence playing him will not be very necessary. You should lift him on land promptly, and not allow him to dart about under water like a mad thing, else he will give the word to his mates, and cause them to disperse as diversely and as rapidly as the seizure of one young pickpocket by the police causes the dispersion of the surrounding shoal.

You must exactly plumb the depth of the water, in order that you may know on what part of your line you are to fix the float. For barbel, tench, and gudgeons, you must fish close to the bottom

and for the generality of other fish of the carp tribe, from three to six inches from it. When the plummet sinks the float so that the upper tip is even with the surface of the water, you have the exact depth. Withdraw your plummet, and move the float downwards on your line, as many inches as you wish your bait should be from the bottom of the water. Fasten your float properly by the usual means, and see that it stands in the water clear of any obstruction to its yielding to the slightest nibble. Green, yellow, or brown is the best colour for a float.

Bottom-fishing Baits.—Worms are the most general baits, and, except at certain seasons, the best. Scarcely a river fish will refuse them. They are decidedly the best baits in spring, and at all times when the waters are clearing after a fall of rain. I will classify them for the purposes of angling.

The dew or lob-worm is the largest used by anglers, and the best bottom-bait for large river fish. Salmon, trout, barbel, chub, tench, perch, and eels take it freely. The middle-sized are the best; but two of the smaller-sized placed on the hook at the same time form a most attractive bait. Dew-worms come out in pairs by thousands towards night, in fields and meadows, after a fall of rain or heavy dew, and disappear into their holes after sunrise, when the dew is dried up by

the coming heat of day. The early bird catches the worm, and so does the early angler. By night they are sought after by the light of a lantern. They may be dug out of moist mould, and out of the moist bottoms of ditches. In dry weather their retreat is deep, and you must dig deeply for them. If you place a quantity of wet straw on the surface of the ground, they will come out in a day or two. It is said that water in which walnuts, or their green shells, have been steeped, poured upon the ground, will immediately bring the worms to the surface. Digging for them, or getting them by night by means of a lantern, or early in the morning by the light of one's own eyes, is the best and most natural way. With respect to the preservation of dew-worms, Captain Williamson truly says, 'It is much the same as that of other worms, namely, to be kept in moist moss, changed every three or four days, and set by in unglazed earthen pots, in a cool place during hot weather. That kind of moss is best which is found on commons, and which is crisp, and of a greenish-white colour. It cannot be too soft and elastic, but should be carefully searched whilst washing before it is put to the worms, so that all thorns and rough substances may be removed, else the worms will not thrive so well. Those who can supply a little cream every day, to be mixed in or thrown upon the surface of the moss-pans, will

obtain a decided superiority in the condition of their baits, which will purge from all impurity, and become beautifully bright and pellucid. The pan should be large, or the worms will not live, whereas, when they have good room, clean, moist moss, and delicate handling, they will go on from year to year.' Not so long, in my opinion, without a layer of nice moist earth at the bottom of the pan or wooden tub. The worms should be frequently examined, and the weak and sickly ones extracted and thrown away.

Mr. Blaine says:—'To preserve worms for use, shred some hard fat, without a particle of salt in it; suet is the best, and mutton kidney suet best of all. Having chopped it into small pieces, and thrown it into a saucepan containing about a quart of water, let it boil slowly, until the suet is dissolved; and then having ready some well-washed hempen sacking or wrapper, that has not enveloped anything noxious, dip it into the liquor. When well soaked in it, and having become cold, then mix some fresh mould with the worms, and put the whole into a deep earthen vessel, or tub: the latter is preferable. Into this pour in a good stock of lob or marsh-worms, or any sort of red earth-worms, and over the top tie a linen cloth that will admit air, and yet prevent their escaping. Place them in a cool situation, and the worms will feed and cleanse themselves, and keep lively

and fit for use for many months. We would observe, however, that if the angler have different species of worms, let him keep them in separate vessels, so that at any time he may select the sort and quantity necessary, to be placed in moss preparatory to his using them.'

The blue-head is a worm that I have found scarce in England. It is common in Ireland, and, in my opinion, is the best of all worms for the salmon tribe, and would be taken freely by the larger species of the carp tribe. It is sometimes four inches long, but frequently found much shorter. The head is of a shining blue; the rest of the body, but particularly the under part, is of a light cream colour, transparent almost to the tail. It is without knobs, and the skin on the belly side feels sharply rough to the fingers. It readily scours in moss, becomes tough, lively, and long-lived. It is one of the most lasting worms in the water I know of. When the water is discoloured by a flood, it is the best of all trout baits, and should be used on a tripping line without a float. Spun in clear water by means of a swivel or two on the foot-line, few fish will pass it by. It is to be found in rich garden mould, about the roots of esculent plants.

Brandlings are capital worms, perhaps the best of all for fish under a pound weight. They require very little scouring, and are, even without

it, tough and lively. They do not run large, and I advise two at a time on the hook for catching good-sized fish.

Blood or Red Worms.—These worms run very small, and are to be found in dung heaps of long standing where the dung and soil meet. Those found in tan heaps are the best, because they are the toughest and liveliest and require least scouring. They are also found in the sides of ditches, and in most light and moist soils. They are a delicate worm, and require light handling. Being small, the hook must be small-sized and very light in the wire. They are a good bait for carp and small perch, and the best of all baits for gudgeons.

Marsh-Worms are very well known in London, and far too highly prized. They cannot be well preserved, require a deal of cleansing, and are, after all, a brittle, and, after a short time in the water, a lifeless bait. In truth, they are only fit for ground-bait, and should never be used on the hook when any of the foregoing worms can be procured.

The tag-tail, called by some the *turnip-worm*, is a small-sized one, red about the head, and yellow towards the tail. Generally speaking, it is not a good worm. It answers best in spring, and when the water is a little discoloured by rain. It is easily found about turnips, potatoes, cabbages,

and in any strong, clayey, cultivated soil. It may be used as soon as found, and that is its chief recommendation.

There are many other sorts of worms recommended by angling authorities; but I recommend none of them except as a *pis-aller*. Some anglers use white slugs, and the black ones so cut as to show their white insides, and say they are good baits for barbel, chub, and eels. Never use them when you can get worms.

Having now described the best worms for angling, I must tell how they are best put upon the hook. Make the points of your fore-fingers and thumbs rough, by dipping them in sand, bran, or dry earth, and you will obtain a light and firm hold of the worm, which will prevent it from slipping through your fingers as you bait your hook. With moist or slippery fingers you can never bait your hook properly, and in the attempt you lose much time and injure the bait.

In baiting with a single worm, insert the point of your hook just beneath the flat part of the head, and work the worm lightly up the shank of the hook and beyond it up your line, until not more than a quarter of an inch of the tail, or at most half an inch, when the worm and hook are large, projects or hangs beyond the point of the hook. When you use well-scoured and tough worms, if they are large lob or blue-heads, you

may leave a fourth part of the worm beyond the point of the hook, as you will thus give it more length to wriggle and appear lively in the water. The tails of small worms should scarcely project beyond the point of your hook. In putting on the worm, hold the hook, its point downwards, between the uplifted ends of your left fore-finger and thumb, and take the worm by the back of the neck, as it were, with the same fingers of the right hand; and when you have got the head of the bait up the shank beyond the bend of the hook, you may draw it gently further with the left fingers, pushing the worm on at the same time with the right-hand fingers. Take care not to perforate, after the first perforation, the body of the worm with the point or barb of the hook. Rarely try to get the worm on by, so to speak, stitches. Endeavour as much as you can to make the tail of the worm fall inside the barb of the hook, and not on the outside of the point. If it hang on the outside, the hook will soon penetrate the belly part of it, and the point being exposed, the fish will either refuse the bait altogether, or nibble off the part that is hanging partly dissevered and clear of the hook. In fishing for carp, dace, and gudgeons, use a small showy, lively worm, drawn up on the hook, the tail almost to the very point.

When worms are small, say of the average size

of brandlings, I prefer two on the hook at the same time, a larger and a smaller one. I put on the larger one first; and when I have got it half on my hook, I pass the point and barb through it, and draw it delicately up the shank on to my gut or hair. I then take the lesser worm, one just of such size that when I bring its head just above the end of the shank of the hook, the tail may hang but very little, more or less according to size, beyond the hook's point. I next draw down the upper worm until the perforated part of it comes in contact with the lower worm, and I allow the tails of both to meet, and, if possible, to entwine withinside the bend of the hook. Worms put on well in this way are most attractive baits, and, believe me, the largest trout will greedily take two large blue-heads well scoured, and adjusted on the hook in the way just described. Let such a bait roll along the stream about a foot or so from the bottom, and, provided salmon or trout be there, you will not unfrequently find it stopped by one or other of them.

Some authorities put on the double worm differently. The larger or upper worm they put on as I advise, but the smaller or lower worm in another way, viz., with its head towards the point of the hook, and its tail upwards to meet that of the larger worm.

In order strongly to impress the young angler

with the necessity of baiting his hook carefully, Captain Williamson observes: 'I have frequently remarked the effects of doubt and of apprehension in fishes of various descriptions, when any part of my hook has been bare. They have come to it in a balancing manner, and either shied off or retreated, tail foremost, or they appeared to be smelling to the bait, and throwing up bubbles of air to the surface. This may be a thousand times witnessed in clear waters, where all their motions are perceptible. I have in general found it to be a very bad omen. Fishes rarely discharge air in this manner, except when in fear or in difficulty, or when in the humour not to bite. If the worm is properly threaded on the hook, so as completely to envelope it, and to have the tail about an inch pendant, lapping over into the bend, few hungry fish will reject it. In this mode of putting on the bait, less opportunity is given for tugging at any part, while it is greatly in favour of hooking any fish that may bite fairly. As a single worm is the more certain bait, so is a double bait, consisting of two worms, more alluring, especially to all the ravenous tribe; therefore, for such it is particularly eligible. It is applied thus: put the hook into the mouth of the largest of two worms, and thread it for about a third its length; then bring out the point of the hook, and slide the worm up, so as to be kept above the bend, and

with its tail hanging down in a line with the shank. Then thread the smaller worm, which should be particularly clear and high coloured, until its head comes up the shank a little above the turn of the bend, and is overlapped by the tail of the first worm, so that no part of the hook can be seen. Be sure to bring the second worm well on, and before you throw in (which should always be done as gently as possible, letting your line down quietly into the water up to the float) turn its tail in, so as to hang down between the point and the shank.'

I have been minute in pointing out the best angling worms, and how they are to be put upon hooks, for worms of some kind or other are taken by fish in every clime, in fresh water and in salt water, and they afford the angler a never-failing resource. He who knows how to angle with them has a sporting relaxation ever at hand, and he who can bait a hook with a worm for a gudgeon can bait one with other baits, be they pieces of fish, of meat, small animals, or any other likely lure, for herrings, mackerel, whiting, cod, or monster shark. By river or sea-side he can amuse himself, and he can break in upon the monotony of an ocean voyage, by angling from the ship's stern for those fish that swim in its wake.

On days when the trout will refuse the artificial fly, they will act differently towards the worm;

but you must angle for that fish with careful neatness, with a fine gut-line, delicately leaded and without the incumbrance of a float. A lively worm dropped in rapids, eddies, mill-tails, worked artistically with the water, and ever and anon spinning it against it by means of a swivel-trace, will rarely fail in affording diversion. After nightfall in summer, worms, trolled upon the surface of the water, will be taken by large trout.

Gentles or maggots come next after worms as good bottom-baits. They suit the summer and autumn months best. They are bad baits for gudgeon, perch, pike, eels, and, indeed, for most kinds of fish that prey upon other fish. I have observed that in some parts of the Thames they are not so good a bait as worms, and that in other parts of that river they are better. Wherever the puntmen ground-bait constantly with worms, there the worm will prove the best bait. On the contrary, where gentles are the constant ground-bait used, gentles are the best angling bait. Fish become more or less habituated to either of these baits, the more or less frequently they find them in the water. For instance, the puntmen at Sunbury on Thames usually throw in worms as their ground-bait for barbel, and in consequence that fish takes the worm there more freely than it does the gentle. At Teddington the fishermen

ground-bait with gentles, and therefore angle most successfully with them. In fishing for large barbel with gentles, you should put as many on your hook at a time as you possibly can. Half a dozen would not be too many. For small fish two gentles at once on the hook are sufficient. Mr. Blaine says: 'Unless the hook be very small, two, or even three, gentles are requisite on it at one time. With three insert the point of the hook into one gentle close to the head, or more bulbous end, and bring it out near the tail: now, take a thin green gentle, and pass the point directly across the body, and then put on the third exactly as the first, except that, *having just shown the point of the hook through the skin of the gentle, retract it again.* For the latter hint we are indebted to Mr. Salter, and a very good one it is; for, as he justly observes, the skin of the gentle being somewhat tough (especially in cold weather), by piercing the skin in the first instance an opening is made, by which the finest stroke (when a bite does occur) will enter the hook sufficiently into the fish to secure it, and you do not risk breaking your line or the top of your rod by striking too hard. One gentle on a No. 10 or 11 hook will often succeed when more are refused, and the fish shy.'

In angling with two gentles, insert the point of the hook by the head of one, and pass it out near

the tail. Insert the point of the hook near the tail of the second gentle, and push it up the hook to meet the tail of the other. The hook should be inserted as close inside the skins of the gentles as possible. The point of the hook is to meet the skin of the second gentle close inside its head. Gentle hooks should be made of very fine wire, sharply pointed and sneck-bent.

Towards the middle of the day, when fish are rising at insects on the surface of the water, a gentle placed on the point and bend of a hook on which a red-winged artificial fly is dressed, will be found a killing bait, especially for chub, dace, and roach. The straw-bait used in the same way will kill trout and grayling well. Mr. Blaine observes: 'The angler will sometimes find, while he is roach and dace fishing, that as the day advances towards its meridian, the roach and dace he may have been hitherto taking with success will gradually leave off biting, and from the bottom will show themselves above, the dace at mid-water, and the roach but a little below the surface. This circumstance will afford him an amusing opportunity of varying his practice by mounting on a gentle-hook, No. 8 or 9, a pair of wings. A very slight ginger hackle-feather is the best for the purpose. After it is on, cover the remainder of the hook with a tough, well-scoured gentle. Whip with this, but not violently, and the dace

will rise eagerly at it. It is more than probable that the roach will take it best when it is sunk some inches, or even a foot or more, below the surface.'

The above bait can be well imitated artificially. Tie on delicately a pair of wings from the land-rail's reddest feather, and imitate the gentle by a body made of a little strip of very fine bright yellow wash leather, or floss silk of the same colour, with gold-beater's skin lapped over it. This bait will last as long as any artificial fly, and may be cast upon the water in the same way, using it as a stretcher in conjunction with two drop flies. If dressed large it will kill large chub, and towards evening in the summer season may tempt large Thames trout.

Gentles are a summer and autumn bait. The bottom-line in fishing with them should be fine, and they should be handled delicately. On fine mild winter-month days they are a good bait for roach and grayling.

Gentles in London can be cheaply procured at the fishing-tackle shops, elsewhere, and by other means. You can even produce them for yourself. 'Hang,' says Captain Williamson, 'a piece of ox-liver on a hook in a shady place, cut it deeply across and across in various places on both sides; then cover it over lightly with small boughs, cabbage leaves, or anything that will shelter the

flies, whilst they visit it to feed and to lay their eggs. In a few days innumerable fly-blows will be seen among the scarifications, when the liver should be taken down, and laid in an earthen pan, about half-filled with sand and bran in equal quantities, somewhat moistened. As the gentles acquire strength, they will quit the liver and bury themselves in the sand, from which they may be taken as occasion requires, when they will have scoured themselves, and be fit to handle. The same liver will produce several stocks, or successions of gentles, if properly managed. The largest will proceed from the blue-bottle and gad-flies, which attack livers with great eagerness.' A sheep's head, an old fowl, and the useless bodies of several small animals kept in a moist, sultry place, will soon produce gentles. Gentles are scoured and rendered tough by keeping them for three or four days in a mixture of sand, bran, and meal.

When you have procured gentles, you must endeavour to prevent them from turning or changing into the chrysalis state. You will do so best by keeping them in a cool place, in a roomy vessel furnished with wet sand. Exposure to the sun's heat soon spoils them.

It is a common and well-founded opinion that barbel and chub prefer green gentles. Roach, dace, and bream like ripe, well-scoured gentles

best. Mr. Daniel, in his 'Rural Sports,' cautions anglers not to throw away gentles that are on the turn from one state to another. Dace and roach, he says, often prefer a turned and a fresh gentle put on the hook together. Gentles used in grayling fishing should be large, fresh, and well scoured.

Preserving gentles for the winter months.—On this subject Mr. Blaine writes with his usual sound sense, remarking that 'in the neighbourhood of still and deep rivers, the angler's winter roach fishing chiefly depends on gentles; and in the bends and deeps of the more rapid rivers which afford grayling, he is equally indebted to them for his principal sport and his largest fish. In September or October, the later the better, so that the parent fly is yet abroad, which will much depend on the season (we have seen the flesh-fly active in the early part of November), allow either the carcass of a fowl or rabbit, a sheep's head or a portion of liver, to be well blown. Procure a butter tub, or, in preference, a stout long elm box (our own was one foot wide, one foot and a half deep, and three feet long); into some such vessel put sifted mould moistened and mixed with dried and pulverised cow-dung. With this mixture half-fill the box, and press it down very lightly. Put the carcass and the blown gentles together into it, strewing them over with some of the same

compost: as the mass sinks, fill it up with the same, and press it at last moderately, as the gentles will sink to the bottom. This box may be then placed in any out-door cool situation, and the mould at times be slightly moistened; or it may be buried a foot or two in the earth, if convenient, and will then require no moistening. The advantages we derived from a long box were, that we could turn up the earth in it at one end to procure the gentles we wanted, without admitting air or disturbing the whole mass.'

The gentles got at the knackers' are generally called carrion gentles, and their proper use is for ground-bait. They are nasty things to handle, and are never so good for hook-baits as the gentles produced by putrefying liver. When used for ground-bait, they attract fish to the locality, but fish easily distinguish the nice, clear, well-scoured gentle on your hook from them, and will take it in preference. They are a great nuisance to carry, as they will eat their way through the stoutest bags, and crawl about in every direction.

The caddis, or straw-bait.—I have a better opinion of this bait than the generality of anglers have. I have killed a great many trout with it, particularly by placing it on the hook in conjunction with an artificial fly. Though the gentle may be a better bait in large rivers for coarse fish of the carp tribe, it is not so good a bait in

the gentle streams and pools of trout and grayling rivers as the cad or straw-bait. These baits are the larvæ of several of the angler's best flies. Captain Williamson says: 'In applying this bait, the point of the hook should enter close under the head, and be brought out at its other end, if two are used. When a very small hook is used, one caddis may answer, and then the hook must not be brought out at its end, but the point must rest just inside the end of the bait. In general two will be found best; it being indispensably necessary to cover every part of the hook. In the latter case the first caddis should be carried round, so as to conceal all the shank, while the other fills the bend and conceals the point. Caddies are in season only during the summer months; they generally make their first appearance in May, and by the end of June are most numerous.' Mr. Blaine, after examining several authorities respecting the merits or demerits of this bait, says: 'We may sum up these contradictory accounts, by adding the result of our own experience, which is, that in some small rivers with little run they will kill every kind of worm-taking fish at bottom. In large, rapid streams, particularly such as run over limestone, they are but indifferent substitutes for gentles or worms.'

An artificial caddis, very attractive on warm windy days, may be very easily made. Wings,

full, and slanting a little over the body, to be made of any brown-red feather; body, long and tapering, of yellow floss silk, covered with gold-beater's skin, and ribbed with brown silk. Head a lap or two of bronze peacock harl.

Caterpillars as baits are too highly praised. Fish, it is true, will take them, but they are more trouble than they are worth. If you do not observe the greatest caution in putting them on your hook, you will spoil them, either by puncturing them too deeply, or by pressing them too hard. Either of these accidents will cause their internal matter to exude, and so spoil them. The best way of baiting with the caterpillar is that recommended by Mr. Blaine, who says: 'In putting caterpillars on the hook some nicety is required. A bristled hook (a hook with a bit of hog's bristle projecting upwards from the top of the shank, to prevent the bait from slipping down) also is necessary, of No. 5, 6, or 7 size, according to circumstances, on which the caterpillar should be threaded, passing it up from the shoulders, leaving half an inch of the tail pendant: pass, or thread another contrariwise, taking care to have the barb completely covered. Inspect the bait very frequently, and change it often. We have also daped successfully with a pair of brown wings on a hook No. 5, and with one caterpillar passed up the hook to meet the wings, where a retaining

bristle dressed on the hook with them should be placed.' Artificial palmers, well dressed, are much more handy, and very often kill better than the real caterpillar. The green caterpillar, or cabbage-grub, is a good bait for grayling.

Pastes have divided the opinions of the angling world, very uselessly in my opinion. Perfumed and variously coloured pastes, as a general rule, should be rejected by the wise angler. The simpler the paste the better:—sometimes made of nothing more than moistened bread-crumb, worked between clean fingers, coloured sometimes with a little vermilion, and for sharp running streams having a little raw cotton worked up with it to prevent its washing off the hook. This paste, varied as above, is the best general one, and when fish will not take it, wish them a good morning, or try the gentle or worm. In order that the learner may not be deprived of any chance resource, I will give him a list of several sorts of pastes.

Common bread paste is made either of new or stale bread, according to circumstances. New bread paste is made by intimately kneading together in the hands for a few minutes three-fourths of new with one-fourth of stale bread, without dipping in water. This working will bring it into a very glutinous adhesive paste. It is particularly fitted, therefore, for angling in

strong eddies and powerful streams; but it does not apply so well to the finer fishings of roach and dace in moderate streams and still deeps, since it will not separate so readily from the hook in striking as the paste made from stale bread; and this peculiar property of separating, to allow the easiest egress for the point of the hook when the angler strikes at a fish, the experienced roach-fisher considers to be essential. In chub-fishing, on the contrary, its adhesive property is valuable, as a larger piece will stick to a larger hook without being washed off, as the brittle stale bread paste would be. It is also more useful than the latter paste for taking dace in the Thames, as well as in the streamy parts of all other dace rivers. This paste is convenient from the quickness with which it is made at home, or by the river side.

Stale bread paste is made of bread one day, or at most only two days, old. In the latter case the bread should be taken from the centre of the loaf. First dip it momentarily in clean water, and instantly squeeze it as dry as possible; then, placing it in the palm of one hand, work it with the knuckles and tops of the fingers of the other for about twenty minutes, when it will have arrived at the fitting consistence. It is well to observe that, as all bread pastes have a tendency to become quickly sour, particularly if wetted, it is advisable, should the angler have far to travel,

that he carry the bread with him and make the paste by the river side. This paste is the best winter bait for roach, and the best of pastes at all times for that fish, since you can fix it on the smallest-sized hook, and its very slight tenacity scarcely offers any obstruction to the point of the hook penetrating through it to the fish's mouth.

A good coloured paste in imitation of salmon roe.—Knead flour and water well together, then wash both in a pailful of cold water, working them well in a mass without dividing it, until the fine parts of the flour are completely washed away: this may be known by its ceasing to whiten the water. What remains will be nearly gluten, and very viscous. Take a little vermilion in fine powder (the size of a large pea will colour a tea-cupful of the gluten), and rub the whole well together on a slab with a muller or flat knife. This paste may be preserved many weeks if kept immersed in cold water. If left exposed to the air, it dries rapidly; when taken out for use, it should be put into a wet bag.

Sweet paste is made by working the crumb of bread with honey to a proper consistence. This is certainly a good paste; but I doubt very much that it is so on account of its sweetness. I have heard hundreds of anglers talk of the gusto with which fish have swallowed this paste, yet I have my doubts, as I do not think highly of the delicacy

of piscine palates. The paste is very easily made, and should therefore be tried, especially as it is spoken favourably of by Blaine and Salter, who say, 'that it is a most killing bait for carp during the months of July and August, and indeed as long afterwards as the fishing season lasts. As regards carp, this bait has a very peculiar claim on those anglers who cannot be at their posts early and late, where the carp-fisher ought to be in most cases. This paste obviates in some measure that necessity, as it is one of the few baits which carp will take in favourable weather even at mid-day. Chub may be taken by it sometimes very well, and roach will seldom refuse it.'

In angling with this paste ground-bait with the *meal ground-bait*, which is the best of all in deep waters for carp, chub, roach, and dace. To make this ground-bait, cut a few thick slices of bread, and put them in a pan without the crust. Saturate well with water, and then squeeze the fluid out. Knead with equal quantities of fine bran and oatmeal, and work into tough balls. Drop one of these in from time to time near your float, and it will attract the above fish if any thing will.

Adhesive paste may be made by boiling slowly for a considerable time the shavings and parings of white glove leather. In the glutinous fluid so produced, knead as much stale bread crumb as is

required to make a given quantity of tenacious paste. This composition will suit rapid waters.

Barbel paste, of a very tempting kind, may be made by soaking bread in the liquor from which greaves have been taken after macerating therein. The introduction of wool into the mass will be found useful, to prevent the current washing the paste away. By putting a small morsel of white greaves on the point of the hook, you will prevent its exposure whilst angling with this paste.

Salmon roe preserved, and salmon-roe paste.—Both these baits have a terrible reputation, so bad, indeed, as to give him who uses them a poaching character. Salmon roe is a natural bait for trout and other fish that frequent the waters salmon breed in. Whilst the female salmon is depositing the ova, many are swept away by the current, and become the natural prey of other fish, inhabitants of the stream.

It is not easy to preserve salmon roe so as to keep it in a proper state of hardness or softness. Generally, with all our pains, it turns out too soft; rarely it becomes, except by gross blundering, too hard. When too soft, it melts away when used, and is then only fit to mix with bread crumb to be made into paste. When too hard, some good still remains, for it can be softened by immersion in water, and, at any rate, will answer for ground-bait.

Preserving salmon roe.—It should be taken from the female salmon a few days before she spawns, and the process of preservation should commence immediately. As soon as the roe is taken from the fish, it must be put into a capacious earthen pan, and cold water poured upon it. After a few minutes' immersion, pour off the cold water, and pour in tepid. Now wash the ova, and separate them delicately with your fingers, breaking none if you can help it. Remove from them all skin. Pour off the water, and add some more clean and warm. Continue to do so until the roe becomes quite clean, and freed from all film. The water must not be too hot—a little more than milk-warm. The last washing must be with cold water, which being drained off, place the roe in a hair sieve until it be dry. To every pound of completely cleansed roe, put two ounces of ordinary salt, mixing well with the fingers, so that each ovum be salted. Drain off the brine afterwards by placing the roe in a sieve or colander for a few hours. Then spread it on a shallow dish, set obliquely at a moderate distance from the fire, and keep stirring with the handle of a wooden ladle, so that each pea of the roe may dry separately, and that there be no adhesion between any. When dry, set it to cool, and, when quite cold, pot it. Press it gently down in pots, over which tie a piece of linen or bladder, on to which you have melted a layer of lard.

In baiting with salmon roe, the hook should be covered with it, and as many grains put in the bend as possible. The most perfect grains should cover the barb and point of the hook. Some persons with a fine needle thread necklace-fashion some fine pink silk thread with the grains of roe, and then wind a sufficient number neatly about the bend and shank of the hook, shielding the point with one of them.

When your preserved salmon roe is too soft to thread it in single grains on the hook, mix a little adhesive bread paste with it, and use it as salmon-roe paste.

Cheese paste is made with either new or old cheese, by mixing stale bread with new cheese, and new bread with old cheese. The substances must be kneaded together to adhesiveness. New bread and old cheese for chub; the other mixture for roach. They are both good autumn and winter baits.

When pastes are used, the hooks should be short in the shanks, of fine wire and sneck-bent. They should be whipped on with silk the colour of the paste, very delicately waxed with transparent white wax.

Ground-baits.—These are essential to extensive success, and should be used abundantly, thrown in for days and nights previously at the spots wherein you intend to angle. They should be thrown in,

at all events, the night before you begin to fish. They should be of the same sort as the baits you are about to use, but of inferior quality. The more carefully and the longer you ground-bait any locality, the greater number of fish you will find there. Naturally, they will congregate to those places at which they find most food.

In rapid streams your ground-bait should be heavy and adhesive, mixed with clay, and having sometimes a large round pebble within the mass. In rivers that are constantly ground-baited the very noise or splash, caused in the water by the fall of the ground-bait cast in, attracts fish to the spot. They are used to it, and know the consequence. Large worms mixed with balls of clay attract barbel, chub, perch, and trout. Bran, pollard, meal, malt, grains, attract roach, dace, chub, and bream. Greaves and pieces of cheese attract barbel and chub. Raking with an iron rake the bottom of the stream, or mudding it by going into the water and stirring up the bottom with your strong-soled shoes or boots, will bring fish into the wake of the discoloured water, and they will eagerly take worms dropped in before them. The best ground-baits are the following. I have mentioned the meal ground-bait already, and it is the best of all when angling with bread pastes.

Bran and clay ground-bait is very simple, and

much used for roach and dace. It is made of a mixture of adhesive clay and bran well worked together, and pieces about the size of a small egg are thrown in where you fish. If you are angling in a current, throw in the balls above you, so that their particles may be washed down to the spot where your hook and bait are.

A good general ground-bait for such rivers as the Thames, Trent, &c., in which there are many kinds of fish.—Mix clay, bran, and meal together, into a firm adhesive mass, which divide into round pieces about the size of cricket balls. In the middle of them place as many worms and gentles as you can; as they creep out they are taken by the fish with impunity, which will encourage them to take your bait, whether it be a gentle or a worm. Nearly all sorts of river fish, the coarser kinds especially, are attracted by this ground-bait, which is especially good in deeps where heavy fish abound.

Other ground-baits are made of soaked greaves and clay, good, when thrown in largely, for barbel, and angling at the same time with prepared greaves; others for still water, such as ponds, are made of mixtures of sand, clay, and scalded barley or wheat; others are made of chopped worms, gentles, pieces of greaves, and cheese; and others of a mixture of wet sand and carrion gentles. Experience will soon teach the angler the proper

use of ground-baits. One thing he must cautiously prevent, viz., the washing away of his ground-bait by the strength of the current to a distance too far from him to fish at. His hook-bait must always drop in close by the spot on which his ground-bait rests.

In winter many anglers fish with prepared greaves, bullock's brains and portions of the spinal chord. A salmon was caught in the Trent with bullock's pith in the winter of 1846–7. Greaves are prepared by soaking pieces in water until they become sufficiently soft, clean, and white. If wrapped in leaves and kept cool, the preparation will hold good for a week or longer.

I have now in one chapter, a rather long one certainly, stated all that is necessary to enable the learner to bottom fish. I might have thrown out many other suggestions, amusing and speculative, rather than positively instructive; but I have refrained, because I know the reader will by-and-by sufficiently speculate for himself, and, I hope, amusingly and successfully. I have laid down the right principles for him to build on, and if he keep them in view in all his angling-castle-building, his visions may be pleasantly realised, even on a sandy foundation.

A TRUTH OR TWO TOUCHING FISHING-RODS.—A trout single-hand fly-rod should vary from eleven to fourteen feet; but the average and best general

length is 12 feet 4 inches. That is the length I prefer. A rod fourteen feet long is only necessary in wide rivers where large fish are to be met with. There are not many men who can with one arm wield it conveniently. It is an implement for the strong in the arm alone.

The materials of which fly-rods should be made are, ash for butt, hickory for middle pieces, bamboo cane for top. The butts of small fly-rods for lads and ladies may be made of willow. It is a nice light wood, and sufficiently elastic for toy-rods. Lancewood I like not for fly-rods. The ash, hickory, and bamboo used should be perfectly seasoned and completely void of blemish or flaw. Let your fly-rod be in four pieces; a greater number are injurious; a lesser inconvenient. Balance in a fly-rod is the main point.

Salmon fly-rods should vary from sixteen to eighteen feet in length—those of sixteen feet for grilse, sea trout, and so forth; those of eighteen for salmon of any size. A salmon rod 17 feet 4 inches is of the preferable average length. It should be made of the same materials as the trout fly-rod, and should also consist of four pieces. The top-joint should have about two feet of lancewood next the small piece; the remainder to the point should be of bamboo cane. The splices of top-joints cannot be glued and whipped too firmly.

I suggest the following improvement in salmon rods. There should be no spare top for trolling or spinning, but merely a spare fly-top, which should be of bamboo cane rent longitudinally into three wedge-shaped pieces, then glued together, reduced to the proper tapering thickness, and strongly ringed and whipped. This spare top should be reserved for heavy work in rivers, in and over which there are rocks and trees, rendering the playing of a fish unusually difficult, and tackle of more than ordinary strength necessary. I have changed my opinion with respect to rods made *entirely* of rent cane or of any other wood rent. Their defects will always more than counterbalance their merits.

Trolling and spinning rods should be about twelve feet long. Those made of mottled East India cane are the handsomest and best I have seen. The above cane is sometimes scarce. The best substitutes are ash for butt, hickory for middle pieces, and bamboo cane for top—the latter stout and short.

CHAPTER IX.

ON PISCATORIAL PHYSIOLOGY.

In order to clear up, for angling purposes, how far fish see, hear, smell, taste, and generally feel, I solicited one of my best friends, Erasmus Wilson, F.R.S., a well-known and accomplished anatomist and physiologist, to write me briefly his opinions on the subject. He obligingly complied, and the following is the useful result.

From the humble position of the fish in the animal kingdom, namely, at the very foot of the scale of the vertebrate series, in other words, the lowliest of that large group of animals distinguished by the possession of a spine, it may naturally be inferred that those higher attributes of animals which depend on the presence of nerves, and of a nervous system, present a corresponding degree of inferiority. Such an inference would be strictly true; for, whatever element of their construction we examine, whether their bones, muscles, vessels, nerves, or organs of nutrition, sense, or reproduction, all suggest alike the idea of inferiority as contrasted with the higher animals and man, but of exquisite beauty as compared

with each other, and considered in relation to the part in the great drama of life which they are called on to perform. The naturalist, however, would repudiate the term 'inferiority' as applied to the structure and organization of the fish—a sentiment in which we feel sure that the disciple of Walton will heartily concur; it is, in truth, *simplicity*, so far as the rest of the animal kingdom is concerned—*perfection*, in relation to its own position in the grand scheme of animated nature.

The faculties of the fish which depend on the nervous system are, Intellect, Sensation, Motion, and the special senses of Sight, Hearing, Smell, Taste. Each of these faculties is presided over by a known part of the nervous system, such part being the material instrument by which the *power* is generated and directed. Hence a pretty correct inference with regard to amount of faculty may be deduced from structure alone, that is, from an examination of the size and qualities of the instrument; but, when to the information thus obtained we add the further knowledge which observation of the habits and instincts of these animals contribute, we find ourselves in possession of ample evidence whereon to frame a correct and sufficient judgment.

The Intellect of animals resides in the brain, in a part of the brain termed the hemispheres; and these organs always bear an exact proportion

to the degree of manifestation of the intellectual faculties. Now, the brain of fishes is remarkable for its small size; and, of the various parts of which it is composed, the hemispheres are the least. Hence we have good reason for assuming that, as intellectual beings, fishes do not merit a higher position than that in which they have been placed by the naturalist. A few instances are recorded which seem to exhibit a power of association of ideas on the part of the fish; for example, their approach to the margin of a stream or pool to be fed; but this can only be regarded as one of the humblest of the mental manifestations; and they would be as likely to advance towards an enemy as a friend if the position of the stranger corresponded with that of their accustomed feeder.

Sensation, like intellect, resides in the hemispheres of the brain, and the inference deduced from the smallness of these organs appears to be just with regard to the faculty in question. Fishes are as deficient in sensation as they are abounding in motion; but the two faculties have no necessary connection with each other; few of the motions of the fish are due to sensation, and almost as few to the *will*; therefore, motion alone cannot be taken as an index of sensation.

The mobility of fish is an obvious quality of these animals, and the instrument by which

motion is effected the largest in their whole economy. This faculty draws upon the brain only for the stimulus derived from sensation and will, both of which are, as we have seen, of insignificant strength. The apparatus of motion includes the spinal marrow and the greater part of the large and numerous nerves which proceed therefrom; and, in addition to this commanding power resident in the nervous system, a host of inferior agents, the muscles, by which the immediate phenomena of motion are accomplished.

The organs of special sense, namely, of sight, hearing, smell, and taste, are each provided with a vital and a mechanical apparatus. The mechanical apparatus of sight, the eye, or, as it is popularly termed, the eye-ball, or apple of the eye, is an optical instrument of great perfection. In man and in the higher animals, the eye-ball is very nearly globular, the deviation from the perfectly spherical shape being in favour of a greater convexity of the transparent front of the organ. In fishes, on the contrary, the breadth of the eye greatly exceeds its depth, and it is flattened in front to a remarkable degree, presenting, in fact, the form of a segment of a sphere in place of a perfect globe. It is obvious that this peculiarity of shape is less easily maintained than that of an entire sphere; hence, it is no uncommon thing to find the circumference

of the eye-ball strengthened by a thin cup of gristle, and, in some instances, of bone. There is another remarkable difference between the eye of terrestrial animals and fishes—a difference which has reference to the nature of the medium in which the creature lives. For example, the density of water is so much greater than that of air, that it is employed in the construction of the eye-ball of man, and the rest of the air-breathing terrestrial animals, as a means of directing the rays of light towards the bottom of the eye, upon which the spotless curtain is spread which receives the picture of external nature. But in fishes it is evident that water, as a medium of refraction of the rays of light, would be perfectly useless, since the medium is aqueous, through which all the rays reach the transparent window of the organ of vision.

The chambers of the eye of the fish, which in other animals contain water, are consequently those which are most easily spared; and it is the reduction of capacity in them that gives rise to the flatness of the front of the eye. The proper refracting apparatus of the eye-ball of the fish is a transparent globe of considerable density and size, termed the lens. In terrestrial animals the lens is small; it is scarcely more convex than a common magnifying glass, and it is soft in its texture. That of the fish, however, is a much

more powerful agent in the refraction of the rays of light, and approaches in some of its characters to the finest glass. By it the rays of light which pass through the transparent window (cornea) in the front of the eye are immediately received, and are as suddenly concentrated on the smooth expanse of the optic nerve, to be transferred by the latter to the vital apparatus. As is usual in optical instruments, there is a thin partition pierced with a circular aperture (the pupil), interposed between the transparent membrane of the front of the eye and the lens. This membrane is intended to regulate the admission of the luminous rays. In some fishes there are two apertures, or pupils, in place of one in this partition, a curious modification, while in some others, as in the common skate, a broad curtain with a vandyked border, is suspended immediately behind the pupil at its upper part, and serves to veil the interior of the eye against the vertical rays which would otherwise interfere with vision. The enumeration of all the modifications in the construction of the eye of the fish with which the naturalist is acquainted, would form of itself an interesting chapter; but the subject is too comprehensive to be more than glanced at in this brief sketch. In most of the fresh-water fishes the eye-ball plays in a bony niche, which is specially destined for its use; while in other fishes in which the bony

niche is absent, the eye is jointed to a moveable bony stalk, and moves on the extremity of that stalk as upon a ball and socket hinge.

The vital apparatus of vision, situated in the brain, is one of the largest parts of the latter organ, being more considerable in size than the hemispheres which are destined to the control of the threefold faculty of Intellect, Sensation, and Will. The nerve or conductor which passes between the vital and the mechanical apparatus of vision, is also of large size, and is curious in its structure; in external form it has the appearance of a cylindrical rod, but when opened, the cylinder is found to be a mere sheath, containing a thin, white membrane, plaited like a fan. When the nerve reaches the eye-ball this membrane unfolds, and is spread out upon the inner surface of the back part of the eye, constituting the sentient part of that organ. This white and spotless membrane, upon which the rich picture of external nature is received, and by which it is subsequently transferred for perception to the brain, is the *retina*.

Whether, therefore, we regard the mechanical or the vital apparatus of the organ of vision, or whether we pursue the enquiry by anatomical investigation, or by observation of the habits of the animals, we have the clearest evidence before us, that the faculty of sight in fishes is one of their highest sentient endowments.

In examining the structure of the organ of vision we are struck by the absence of the outworks of defence to the eye, namely, the eyebrows and eye-lids, which are met with among terrestrial animals. It is clear that these appendages are rendered unnecessary by the nature of the medium in which the creatures reside. The same observation applies with even stronger force to the organ of hearing: there is nothing on the exterior of the head of the fish to indicate that it is provided with an ear. In the higher animals the mechanical apparatus of hearing consists of an external and an internal portion; in fishes the internal portion alone exists, and is hardly inferior in perfection of form and structure to that of creatures placed higher in the animal scale. The nerves distributed to the organ of hearing are of large size, and the vital apparatus or portion of brain, from which the latter proceed, is also considerable. There exists, however, this important difference between the organ of hearing of terrestrial animals and fishes, namely, that the ear in the former is organised for the reception of the more delicate vibrations of the atmosphere, while in the latter it is adapted to the rude oscillations of a denser element. We may make this difference apparent by the following simple illustration. The impulse occasioned to the air by the ticking of a watch is so weak, as to be indistinctly heard

when the watch is brought close to the ear, but if we convey the watch to a greater distance from the ear and press it against the teeth, or if we rest one end of a rod of wood against the watch and the other against our head, we hear the ticking with remarkable distinctness. In the language of science, solid and dense bodies vibrate with greater intensity than lighter media, such as the atmosphere. When the watch is held nigh to the ear the atmosphere is the conductor; when the watch is connected with the ear, by the intervention of a rod of wood, or the solid parts of the head, these are the conductors. Now the apparatus of hearing of the fish presents conditions of the latter kind; water, a denser body than air, is the conducting medium; and the solid mass of the head, and, in fact, of the entire body, completes the conduction to the vital apparatus. Hence in fishes, an humble contrivance is capable of effecting the same end as the high-toned instrument of terrestrial animals. Fishes must, therefore, hear with moderate acuteness, particularly such sounds as occasion a vibration of the element in which they reside; for example, an approaching footstep; while the sounds which proceed from musical instruments, being less easily conveyed, are probably unknown to them; certainly this is the case with regard to tone. Those curious porcelain-like bodies, which are

found in the head of the fish, and which must be known to every investigator of the gastronomical merits of his game, form part of the mechanical apparatus of hearing.

The external or mechanical apparatus of the organ of smell is a pair of small cavities or chambers, communicating with the aqueous element by means of four apertures, and situated near the extremity of the snout. The two openings of each olfactory chamber are intended to permit a free ingress and egress to the water in which the odorant principles are dissolved. But there exists no contrivance, so far as we know, for maintaining a constant current through the chambers. In this particular, the organ of smell of fishes is greatly inferior to that of higher animals; for in the latter, the olfactory chambers give passage to the greater part of the air which enters the lungs, and are thus enabled to test the quality of all the air received into the chest for respiration. In fishes this power is less requisite, hence the inferiority of construction. The olfactory chambers are lined by a soft membrane, technically a mucous membrane, which is richly supplied with blood-vessels, and is brought into connection with the vital organ by means of a moderately large conducting nerve. The arrangement of this membrane evinces one of those beautiful contrivances which are so frequently met with in the

animal machine, and which are intended to provide a large surface within a limited space. In order to increase the extent of this membrane as much as possible, it is thrown into a multitude of minute plaits which radiate from a central point and have a very elegant appearance. From the back of the olfactory chambers there proceed, as we have already stated, two nervous cords, which conduct the impressions received by the mucous membrane to the brain.

The vital apparatus of smell, like that of sight, consists of two round masses or lobes of nervous substance, which occupy the front of the brain, and preside over the manifestation of the olfactive faculty. They are inferior in size to the optic lobes, though often as large as the hemispheres of the brain. We are thus supplied with conclusive evidence of the possession by fishes of a power of smell. The mechanical and the vital portions of the apparatus, with the conducting nerve from the former to the latter, are complete; the only question which requires solution is the degree of the sentient power. The vital apparatus being large would be an argument in favour of a vividness of perception; but the small mechanical portion, and especially the absence of a stream of water through the olfactory chambers, leave the organ imperfect. On these grounds, we should be inclined to give the faculty of smell a position next

in order to that of hearing, and greatly inferior to that of sight.

Taste is at all times, and in all animals, a modification of common sensation, or the simple sense of touch. Its seat in fishes is probably the whole interior of the mouth, the tongue of these creatures being, as is well known, very small and very imperfectly developed. The observations which we have previously made with regard to sensation and to the vital organs of that faculty —the hemispheres—are applicable here. We cannot give the fish credit for any refinement of taste, and taste, with touch and feeling, must be content to occupy the lowest rank of the nervous senses.

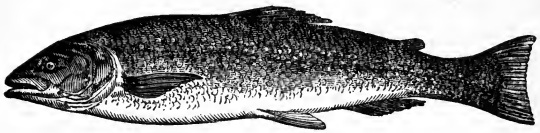
It is impossible to regard the distribution of the higher faculties of the fish, which is here portrayed, without a sentiment of admiration of the wisdom and goodness of Providence, that has thus restricted the sensations of a large group of creatures, living in an element of danger, and destined to be the prey of the more powerful of their own kind as well as of the other classes of animals. They have the eye to see, the ear to apprehend, and the muscular system to escape danger. They have also a power of smell to discriminate the qualities of the stream which it is their pleasure to seek; while the absence of nicety of taste renders them unheedful of the

savour of their food, and an imperfect sensation saves them from the pangs which they otherwise must feel in the grasp of their destroyer.

The angler who will study these observations, and avail himself of the lesson which they convey, will judge how far it is necessary to keep out of the sight of fish, and refrain from making a noise —to what extent fish suffer torment from the hook, and how far it is useful to employ scented baits to please their palates.

CHAPTER X.

THE HABITS OF THE ANGLER'S FISH, AND THE BEST WAYS OF CATCHING THEM FAIRLY.



THE SALMON.—*Salmo Salar.*

THE natural history of this splendid fish, the pride and profit of the great rivers of the British Isles, was nearly unknown fifteen years ago. The greatest natural historians, from the French Lacépède down to our own observant Yarrell, were ignorant of many of the main features of its existence. Until the period alluded to we were nearly all in error with respect to its growth, and we thought the parr a salmon fry. We have now ascertained its growth, and know positively that the parr is not a young salmon of the first year, but a pure trout of the smallest variety, and not unlike a salmon fry in the eighth month of its existence. We also know that up to the beginning of its second year the growth of salmon is

exceedingly slow; that afterwards it is wonderfully rapid, but in salt water only. Once a grilse or a salmon, in fresh water its growth is stationary.

I shall, before I enter into detail, give in a very few words the salient points of the salmon's natural history. The female salmon, viz. the fish with what is commonly called the 'hard roe,' deposits its eggs, spawn, or ova, in gravel beds, in the autumn and winter months. Simultaneously with deposition, the ova are impregnated by the spawn (the milt) of the male fish, or 'soft roe,' being exuded over them. That is the active process of procreation. The deposited ova are hatched on an average in from one hundred to one hundred and forty days; duration of time depending on the temperature of the water. The warmer the water the more rapid is the work of incubation. In a few weeks after expulsion from the ova the incubated matter assumes the fish shape. This embryo salmon grows slowly, and remains for the first year the diminutive fry or smolt. On completing its first year it changes its coat, and indeed its shape. The transverse bar-marks and spots disappear, and it becomes the silver-grey smolt, salmon fry, or lastspring. Its first year or thereabouts being completed, it migrates for the first time to the sea, and in two or three months or more returns to its parent river a peal or grilse, having increased two pounds or

so during every month it has tarried in sea water. About the end of its second year, and not unfrequently four or five months sooner, it breeds, and soon after, say two or three months, migrates for the second time to the sea. A sojourn there of a few weeks changes its name, size, and shape, and immigrating again into its native stream it becomes a salmon. To deserve that name it must have made two voyages to sea, and entered the third year or thereabouts of its existence. Afterwards, as long as it lives, it visits the sea annually, and annually revisits the streams of its birth, in which it gives birth to thousands of its tribe. Become an adult, the longer it remains at sea the more rapid is its growth. In fresh water it no longer thrives, and seems to seek the pure element for the purpose, although not invariably, of propagating its species. I have now in a very few lines traced the grand outlines of salmon life. I shall now confine myself to some minute details, omitting those that I do not think it necessary for the mere angler to know.

Mr. John Shaw of Drumlanrig, and Mr. A. Young of Sutherlandshire, the former the manager of the Duke of Buccleuch's salmon fisheries, the latter of those of the Duke of Sutherland, were the first to prove publicly some of the facts above glanced at.

Salmon begin spawning in some rivers as early

as September, and continue doing so through the winter months; the chief ones being December, January, and February. A few remain on the spawning grounds; and Mr. Scrope says he has caught full 'roeners,' as they are called, in the month of May in the Tweed.

'Salmon,' I have recently written in a note to a new edition of 'The Complete Angler,' 'never deposit their spawn in deep or still water. If they did, it would not be vivified. To vivify salmon ova impregnated by the milt, the combined influence of running water, atmospheric and solar action, are necessary. Hence Nature directs the salmon to spawn in shallows, or the fords, as they are called, and even to run up narrow, shallow, rapid brooks, tributaries to the larger salmon rivers, to do so. The female chooses a mate, who must make good her selection by fighting for it; and in these salmon onslaughts the trite saying, "None but the brave deserve the fair," is fully verified. The male fish that remains in victorious possession of his aquatic bride, proceeds with her to make choice of the marital bed, having driven from it all intruders. This bed is placed in a shallow part of the river, and consists of gravel and sand. Having chosen it, it is necessary to make it. I cannot tell whether it is the gentleman or lady that commences the operation first, which is done by one or the other darting its head

into the gravel, and burrowing upwards and downwards in it, the tail being used as a propelling power, and the snout as an excavating one. As soon as one fish gets tired, the other takes its place. When one link or nest of the bed is deep and large enough, the female enters it and deposits the mature portion of her ova, or part of it, and then retires. Forthwith the male takes her place and exudes some of his milt upon the ova, thereby impregnating them. This done, they proceed to dig another nest, the gravel and sand excavated from which covers the ova in the first nest made. This process is continued, nest above nest being dug, until the female has deposited all her ova. This is not the work of one day: it may extend from two or three to eight or ten, according to the size and age of the fish, that is, according to the quantity of ova to be deposited. The younger and smaller the female fish, the fewer ova she has, the sooner they will be all mature, and the more rapidly they will be deposited, and the whole process of digging the different nests of the narrow longitudinal bed, and covering them in, be completed. Once covered in, the fish have no further care for the spawn. They drop down into the next deep pool, and there remain until they become partly convalescent from the exhausting effects of spawning. They are now "mended kelts," commencing their voyage to the sea to recruit

thoroughly their health, to grow and fatten in submarine feeding fields. In from 100 to 140 days the ova are hatched. The fœtus at first is like a large larva with a little sack of nutritious vitelline matter attached to its neck. On this it lives for about a month, when the sack disappears, the fœtus assumes a fish shape, and is able to seek for food for itself amongst the gravel. At two months the fry is perfectly shaped, and strongly marked with transverse bars, and pink spots along the lateral line. The transverse bars are erroneously called "parr" marks; some naturalists confounding the salmon fry with the diminutive trout called the "parr." At two months the fry eagerly feed upon flies on the surface of the water, and small worms or larvæ at the bottom. It goes on slowly increasing in size until it is a year old, when the transverse bar marks disappear, and it assumes a silvery exterior covering of small scales, called its "migrating" coat. It is now a smolt; and with the first moderate flood it takes its maiden trip to the sea. It feeds therein from two to four months on an average, and then immigrates to its natal river a "grilse." In the ensuing autumn or winter it breeds for the first time, and returns again to the sea. Having sojourned there the requisite time, it immigrates for the first time, and is now an adult, though not an aged salmon.'

It would be impossible to write more correctly

on the growth of salmon than I have already done in the 'Book of the Salmon,' pp. 197–201, as follows:—'At the end of a year, the whole of it passed in fresh water, the young fish, on an average, weighs little more than three ounces. At that weight, being a smolt, it descends to the sea; and if it should remain therein, say for eight or nine weeks, and then return to its natural element, fresh water, it will, in all probability, and no specific circumstances preventing, have increased by the end of that time to the weight of five pounds or more. This rapidity of increase is most wonderful; and though an adult salmon has been known to double its weight by sea-food in thirty-eight days, nothing like the increase that takes place between the smolt and grilse states ever after occurs. So, if the growth of salmon during the first year of their existence is extremely slow in fresh water, it is, after that age, by far more than proportionably rapid in salt water. It will be well to bear in mind that the growth of salmon is not always proportioned to the length of time they sojourn at sea. Several circumstances affect their rate of physical development. Amongst others, indeed, these are the chief ones—quality and quantity of food found on the salt-water feeding-grounds, and hereditary capacity for growth. By "hereditary capacity" I mean, that the offspring of large fish have the inherent power of

growing, and do grow, faster and to a larger size than the young salmon of small race. When I speak of large and small salmon, I refer to fish which eventually become very large, and to fish which, no matter what their age, will always be small; in fact, to giant and dwarf breeds. The growth of salmon fry is pretty equal in all rivers; and, therefore, smolts, no matter whether they are the produce of large or small salmon, will be found in different rivers, not differing much in size. Such is not the case, however, after the smolt stage of existence. After that, the growth of the offspring of large-growing salmon is more rapid than that of the produce of salmon of more diminutive race. The smolts of rivers which produce salmon weighing forty pounds, grow faster to the grilse and in the salmon state, than the smolts of rivers whose largest fish do not exceed twenty pounds; and faster still than the smolts of rivers, the salmon of which do not average more than ten pounds in weight each. I will suppose three rivers running, at short distances the one from the other, into the same arm of the sea, as do the Shin, the Oikel, and the Carsely, and that smolts from each descend simultaneously, and take up their quarters on the same feeding-grounds. Again, I will suppose them returning in the grilse state simultaneously to their respective natal rivers. It will be found that the grilse

of the Shin will be larger and much longer than the grilse of the Oikel, and that the grilse of the Oikel will be larger than the grilse of the Carsely. The reason of this disparity is, the full-grown fish of the Shin are much larger than those of the Oikel, and the adult fish of the latter are somewhat larger than those of the Carsely. The growth of salmon at sea, and at sea only—for, after having attained in fresh water the smolt size, they make no further increase in the non-saline element—depends on three things: duration of time they remain on their sea feeding-grounds, quality and quantity of food they obtain thereon, and hereditary capacity for growth with apportioned powers of digestion. The grilse of small salmon, that is, of salmon which never grow beyond a small size, are handsomer, in every way better shaped, and generally of a brighter hue, than the grilse, the produce of larger-growing salmon. The grilse of the rivers Carron and Laxford, in Ross-shire and Sutherlandshire, are handsome, small-headed, thick and deep and short in the body; the scales of which are small, smooth, and bright, because they are the offspring of small parent salmon; whereas, the grilse of the river Shin, in which salmon grow to a very large size, are ill-shapen fish, having large heads, long, thin bodies, large, long fins, and large, rough, and by no means brilliant scales. It requires experience

to distinguish a large and well-shaped grilse from a small salmon; indeed, grilse are sometimes larger than salmon, for the same reason that a young Dorking fowl is larger than an aged bantam. Frequently the only distinguishing marks between grilse and salmon are the smaller scales of the former, and the longer and larger fins in proportion to size. The fins of a grilse of eight pounds in weight are longer and larger than those of a salmon of the same size. The tail of the grilse is deeply forked; that of the salmon less so, and very slightly indeed when in prime condition.'

The following table shows the growth of grilse into salmon:—

When marked	When retaken	Weight of Grilse	Weight of Salmon
		lbs.	lbs.
February 18	June 23	4	9
,, 18	,, 25	4	11
,, 18	,, 25	4	9
,, 18	,, 25	4	10
,, 18	,, 27	4	13
,, 18	,, 28	4	10
March 4	July 1	4	12
,, 4	,, 1	4	14
,, 4	,, 10	12	18
,, 4	,, 27	4	12

Mr. Scrope says, 'The above disparity of growth is easily accounted for, since it is not probable that these fish, which were caught, marked, and

returned to the river in February, went down to the sea before March, if, indeed, so early: of course they would not increase in growth in fresh water, though they would mend somewhat in weight, after their weak spawning state. Setting these, therefore, aside, it appears that the growth of the last four fish averaged two pounds each per month when they were at sea; and if they remained in the river after the 4th of March, as it is reasonable to suppose they did, then their growth must have been proportionably greater.'

I will go back again to before spawning time, and trace the habits of the salmon up to that time.

Salmon enter rivers from the sea as early as February and March, for the sole purpose, it is supposed, of spawning; but it must have some other object in view as well, since at the earliest the spawning process does not commence until September. It cannot be for nourishment, because it is well known that salmon lose in weight and condition every day they remain in fresh water. Mr. Scrope goes on to remark, 'Some think it is to get rid of the sea-louse; but this supposition must be set aside, when it is known that this insect adheres only to some of the newly run fish, which are the best in condition. I think it more probable that they are driven from the coasts, near the river, by the numerous enemies

they encounter there, such as porpoises and seals, which alarm them in great quantities. However this may be, they remain in the fresh water till the spawning months commence. On the first arrival of the spring salmon from the sea, they are apt to take up their seats in the rear of a skull of kelts, and at this early period they are brown in the back, fat, and in high condition. In the cold months they lie in the deep and easy water; and as the season advances they draw into the principal rough streams, always lying in places where they can be least easily discovered. They are very fond of a stream above a deep pool, into which they can fall back in case of disturbance. They prefer lying upon even rock, or behind large blocks of stone, particularly such as are of a colour approaching that of themselves. At every swell of the river, unless it is a very trifling one, the fish move upwards nearer the spawning places; so that no one can reckon upon preserving his particular part of the river, which is the chief reason of the universal destruction of these valuable animals. Previous to a flood, the fish frequently leap out of the water, either for the purpose of filling their air-bladders to make them more buoyant for travelling, or from excitement, or, perhaps, to exercise their powers of ascending heights and cataracts in the course of their journey upwards.'

Historians used to gravely tell us that salmon, in order to jump high, were in the habit of placing their tails in their mouths, and then, bending themselves like a bow, bound out of the water to a considerable distance, from twelve to twenty feet. Mr. Scrope calculates that six feet in height is more than the average spring of salmon, though he conceives that very large fish, in deep water, could leap much higher. He says, 'Large fish can spring much higher than small ones; but their powers are limited or augmented according to the depth of water they spring from; in shallow water, they have little power of ascension; in deep, they have the most considerable. They rise rapidly from the very bottom to the surface of the water by means of rowing and sculling, as it were, with their fins and tail; and this powerful impetus bears them upwards in the air, on the same principle that a few tugs of the oar make a boat shoot onwards after one has ceased to row.'

THE SALMON-FISHER'S ROD.—Before I proceed to teach how this angling apparatus must be used, I shall state what it should be in shape, size, material, and so forth. No salmon fly-rod need ever be longer than eighteen feet, and should never be shorter than sixteen. With two well-made rods of the above lengths, the widest and narrowest salmon-rivers may be properly fished, and salmon and salmonidæ of every size satis-

factorily captured. I am fully aware of the advantages of very long and very powerful rods in wide rivers, and in strong hands; and I admit, *cæteris paribus*, that a strong man, six feet in height, with a rod twenty feet long, and winch and line to match, will cover more water, and capture a greater number of salmon in less time, than a man of five feet six, with a seventeen or eighteen-foot rod. In all other respects I suppose them equal; that the tall man is as expert an angler as the short one, that the flies and tackle are equally good, equally well made, and of equally good material. This equality being conceded, the only difference will be that which exists between the length, size, and strength of the men and their tackle. This difference is advantageous to the stronger man, particularly in large rivers prolific of large fish.

A man of the average height, weight, and strength of Englishmen (5 feet 8 inches, and $10\frac{1}{2}$ stone), should never use a rod longer than 17 feet, or at the utmost $17\frac{1}{2}$ feet. That is the average length I recommend for powerful rods. With it the largest salmon that ever swam can be safely played and securely captured. A winch that will carry sixty, eighty, or sometimes one hundred yards of stout line, will not destroy the balance of such a rod. Twenty-five yards of line—perhaps, in the hands of a well-trained adept thirty yards—

may be thrown with it, without danger to its top-joint or small-pieces, and such a cast is sufficiently long for all useful intents and purposes, and the strongest salmon may be checked in its career—hook, gut, and winch-line, being of good material — by a rod not exceeding in length seventeen feet.

The salmon-rod is to be held with both hands, one above, and the other below the winch. In throwing from the right side, the right hand is to grasp the rod above the winch, the left below it. In casting from the left shoulder, the left hand is to be first and the right last; that is, it must clutch the rod between the winch and the extreme butt-end of the rod. In fishing down a river on its right side, the left shoulder-cast is to be used; in fishing from the left bank, the right-shoulder throw is the proper one. Stand at the head of a stream, looking down it as it runs from you, the bank on your right side is the right-hand bank; that on the left, the left-hand shore. In ascending a river, the left-hand bank is on your right side, and the right-hand bank on your left. This explanation may be deemed superfluous, but I fancy it will enable me hereinafter to be more perspicuous than if I had not given it.

I'll suppose the salmon-fisher coming down the right side of a river, and that above him, to his right, are cliffs or trees—how can he bring back

to that side over his right shoulder, rod and line, without causing them to come into collision with the impediments behind him on his right? He can do so in two ways—the first in greater part wrong, the other perfectly right. The first and imperfect way, I call the back-handed cast. It is performed thus:—the point of the rod held nearly perpendicularly up before you—the forward and upward slanting direction being very slight indeed —the point of the rod is swept to the left, and with it the line, to its entire development; then the hands,—no, not both, but the right one,—wrist, and fore-arm, are turned over, backwards, to the right, and the rod brought round in the same direction; the line is turned over circularly, and propelled down or obliquely across the current. I frequently throw in this way, for the purpose merely of easing the arms, fatigued from the monotonous action of throwing over-hand from the right or left shoulder. It will be seen that the effect of this throw will be to carry the line clear from the bank behind, up and over the river, and then to bring it back over the current's course, and cause it to alight down stream to the right. Notwithstanding, the action of the arms must be cramped, for it is reversed in the over-handed throw, and the cast must be very limited in extent. Besides, when fishing from the right bank of a river, the fly can never be so neatly worked

against the water with the right hand holding the rod above the winch, as when the left hand holds it there. The second method of casting from the right bank, and which is the proper one, I will now explain.

You hold your rod, the left hand being above the winch, and the right one beneath it; left leg foremost, and left side towards the river. You bring your rod round, by, over, and beyond the point of your left shoulder, which motion will carry the line to its full extent upwards over the bed of the river, and feeling that the line is so extended, you bring back a little, in the direction you are going to cast, the point of the rod, and making use chiefly of the action of the left arm, you propel the line forward by a motion you give the rod, as if you were going to strike at something hovering in the air before you. The forward motion of the rod will be checked at a short distance, unless you bend forward with it, and the line will be sent straight out, the fly and gut-line, to which it is attached, coming first in contact with the water. Giving the arms and bending the body too much with the rod, in making the cast, is a very bad habit, as it brings the point of the rod too close to the surface of the water, deadens its elastic and propelling action, and causes the line to fall in a loose and slovenly manner on the water. This left shoulder-cast is

only absolutely necessary when you are fishing from beneath the right bank of a river, and have behind you impediments to a right-hand sweep of your rod and line. If the right bank be flat or shelving—if it be clear of obstructions—I can see no material objection to right-shoulder casting from off it.

The straight right-shoulder cast is done thus: the right hand holds the rod above the winch, the left below it; the right side is next the river, and, of course, the right foot is foremost. You bring your rod and line boldly and freely in a fine, easy, wide, semicircular sweep over your right shoulder, and then you send them forwards by communicating to the right fore-arm sharp action, as if you were going to hit something elevated before you with the soft part of your closed hand, on the little finger side. If all this compound action—bringing back the rod and line over the right shoulder, and then sharply sending them forward—be performed dashingly and energetically, without nervousness, stint of sweep, and strength, your fly will be sent straight away to its destination, similarly to, but not so swiftly as, an arrow shot from above at an object sitting beneath you on the water, at a distance of five-and-twenty or thirty yards. The straight casts, whether from the left or right shoulder, are, generally speaking, the best. At any rate, executed by a proficient, they

are always the neatest, and should by beginners be the first learnt, and then practised unto perfection. They can be performed with great accuracy, so as to enable the angler to determine, almost to an inch, the precise spot on which his fly is to fall. They cause the fly and casting-line to touch the water first, and enable you to commence working the fly or showing it to the fish, sooner than you could do if much of the winch-line came in contact with the water simultaneously with the casting-line. The effect of the straight cast is less disturbance to the water than that of any other species of cast; the only defect that can be attached to it is, that you cannot by its means throw so far as by using the side, or rolling cast, but you can throw it more neatly.

Your fly and gut-line must always fall first upon the water, and not roll on to it by means of the winch-line first coming into contact with the liquid surface. The rolling descent of the line and fly should be avoided *totis viribus*, with mortal might and main. The error of the majority of salmon-fishers lies in their working the fly through the water with too much force and rapidity. I am told, and I have reason to believe it from some personal observation, that the error is more frequently committed by Irish salmon-fishers than by Scotch. The latter, however, perpetrate it commonly enough to be adjudged sinners re-

quiring earnest admonition. I advise gentle working of the fly through and against the water, with no more action than is required to display before the eyes of the fish the artificial bait attractively; with no more speedy power than can be easily compassed by a pursuing fish.

The salmon-fly is always to be worked or humoured against the current, never with it; to be worked up and down beneath the water's surface, head foremost and onwards towards the angler, or rather in the direction of the point of the rod. This is done by moving your hands and arms up and down, somewhat in the way you would work a light and free pump-handle. The up-and-down motion of your hands will communicate a similar motion to your rod, line, and fly—similar in appearance, but not in degree. The casting-line and fly will be less influenced by the action of the hands and arms than the rod; and the winch-line —at least the portion of it in the water—will feel the action less than the rod, but somewhat more than the casting-line and fly. In performing this up-and-down action, the line must be drawn in a little, by directing the upward motion of the rod a little towards yourself.

In hooking a rising fish, Mr. Scrope properly observes, 'It is best to strike a little sideways, that the hook may fasten in the fleshy part of the mouth; whereas, if you pull straight up, you are

apt to encounter the upper or bony part; or, if the fish has not closed his jaws, and fairly turned off, you may pull the fly away from him too soon, to the disappointment of both parties. Sometimes, however, when a salmon is clean run, and in high glee, you can scarcely miss him, strike which way you will. In low water you must be somewhat dilatory in striking: you often see the heave of the water and a break before the fish has actually seized your fly. Give him time to turn his head in his way back to his seat, to which a salmon always returns after rising at the fly.'

Never strike sharply at a salmon-rise: a gentle pull of your rod and line a little upwards and towards you will do. You will then hook him gently, and he will fasten the hook fast enough himself as he moves away. In playing your salmon, use him very gently at first, particularly if he is inclined to adopt gentle conduct towards you. By gentleness you may persuade him that he is not hooked at all, and you may coax him away from the shelters of rocks, &c., and lead him into open water, where, when he begins his struggles, you may have a clear stage on which to do battle with him. When once his struggles have begun, you must give and take line according to the fish's strength, and that of your tackle. Butt him whenever you think you can do so safely,

without a smash; and never fail to try the butting system when your fish is darting for some dangerous retreat.

In the absence of a guide, take it as a general rule that salmon are seldom seen resting on a smooth, gravelly, or muddy bottom. They incline towards lying amongst rocks and large stones; and if a rapid current runs through them, the angler must work his fly, not in the middle of it, but by each side of it, for it is there salmon lie, between the still and the rapid water. Salmon very seldom lie in the middle of a rapid current; they could not do so without over-exertion. In rocky or stony pools, where the current is moderate, salmon lie in almost every part—before and behind, and between small rocks, and at the extreme end of the pool, where it is falling somewhat rapidly to form the head of the next stream below. Two rocks or large stones opposite to each other, and somewhat apart, form two currents which meet in an angle; within, or a little below this angular point, salmon constantly lie. The fly should be thrown a little below the angular, or pointed, meeting of the currents, and then be worked first straight up the middle between them, and then on the inner side of each current. In good rivers I have seldom failed to find fish in spots like the last described. I would never fish in the boiling foam, underneath waterfalls and

weirs. In fine late spring, summer, and early autumn weather, salmon rise best of mornings and evenings; before 10 o'clock A.M., and after 5 o'clock P.M. In early spring-tide, I consider the best hours for salmon-fishing are those between 10 A.M., and 4 P.M. It is complete loss of time to fly-fish for salmon in the middle of the day, when the water is low and clear, and the sun shining out cloudlessly. When the mercury in the barometer is falling, fish never rise; when it is rising salmon rise, no matter from what point the wind blows.

River Shannon Flies.

No. 1. Body, half light orange, half blue silk, to be ribbed with broad silver tinsel and gold twist; a lightish blue hackle, stripped on one side, over the body; blue jay under shoulder; head, seal's fur dyed yellow; tag, orange silk; above it another tag of fur of deeper orange hue; tail, large topping; wings, ten or twelve largest sized toppings, sprigs of the leading tail feathers of the golden pheasant, and four long feelers of blue and yellow macaw. This is a standard spring Shannon fly. It should be dressed on a No. 3 or 4 Phillips's hook, with shank lengthened to the dimension of a No. 1 or 2. We are all now

averse to salmon hooks that are very large and heavy at the bend and barb. The largest sized hooks should never be wider in the bend than No. 3 or 4 hooks, with shanks as long as the old hooks marked No. 1 and 2 by me, and by Phillips 4 and 5.

No. 2. Body, half orange, half black floss-silk, over all of which a plain ginger hackle, and silver tinsel and gold twist; blue silk tag, tipped with silver; blue jay at shoulder, and blue fur head. Wings and hook as before.

No. 3. Pomona-green floss-silk body over which blood-red hackle, stripped on one side; orange tag, jay under shoulder, and blue head. Wings and hook as before.

No. 4. Black floss-silk body, silver tinsel and lemon-colour hackle over it; orange tag, dark head, and wings and hook as before.

No. 5. Body, all blue or purple floss-silk, over which a blue hackle; yellow head, and wings and hook as before.

I now come to three much smaller flies for the river Shannon. They are used in the summer and autumn months, chiefly for grilse, or, as they are called in Ireland, 'salmon peal.'

At the head of them stands the 'Goldfinch'—that beauty standing first in the frontispiece, and described at the end of the list of salmon flies. Then comes

No. 2. It is to be similar to the 'Goldfinch,' except that its body is to be of light-green floss-silk.

No. 3. Body, claret floss-silk, gold-tinsel, and blue jay-hackle over it; orange tag, and black ostrich head. Wings, broken-up fibres of blue, yellow, and red macaw, guinea-fowl, and golden pheasant tail-feathers; over the wings, one or two toppings. Hook, No. 5 and 6.

I consider this one of the best types of a gaudily mixed wing, and one that would suit bodies of other flies, made of materials of plain, Quaker-like colours.

Ballyshannon Flies.

No. 1. Body, yellow or gold-coloured floss-silk, ribbed with gold tinsel; black ostrich tag, and two toppings for tail; legs, a bright yellow hackle, from the tail upwards, and a little yellowish-green mohair and blue jay at the shoulder. Wings, two toppings mixed with golden pheasant neck-feathers, and a few fibres of ibis, bustard, mallard, Argus pheasant, peacock wing, yellow macaw, and a little green parrot; head, black ostrich harl. Hook, No. 6 and 7.

No. 2. Body, orange floss-silk, ribbed with gold tinsel, a deep orange hackle struck over the

body, and blue jay at the shoulder Wings, two cock of the rock feathers, with a topping at each side of them extending a little longer than they over the bend of the hook, with fibres of mallard and jungle-cock; tail a rather long topping; head black, with a little blue mohair underneath; feelers, blue and yellow macaw. Hooks as before.

No. 3. Body, lilac floss-silk, gold twist, and tag of orange mohair; blue dun hackle over all, with jay and kingfisher at the shoulder. Wings, a few fibres of mallard, mixed with toppings, neck and tail-feathers of the golden pheasant, also a few fibres of cock of the rock, bustard, guinea-hen, and green parrot; feelers, blue and yellow macaw. Hook, No. 7 and 8.

No. 4. Body, light blue dun fur, mixed with yellow mohair, and ribbed with gold tinsel; over body, wound side by side, two grizzled cock's hackles, dyed yellow and orange; blue jay at shoulder, and underneath it a cock of the rock feather, wound round the throttle. Wings, half-a-dozen middle-sized toppings, mixed with mallard and blue macaw, and on each side of the wings a jungle-cock feather; dark blue head and the usual feelers. Hook, No. 6 and 7.

These four patterns are, to my mind, perfection. Flies dressed after them will be of medium size, tending to small. They will kill in any water in

the world, wherein salmon are tempted by brilliant colours, variegated and subdued by an admixture of hues, whose rich beauty surpasses that of splendid gaudiness.

SOUTH OF IRELAND FLIES.

Flies for the Lower Blackwater, County Cork.

The following flies are for Lismore, on the Blackwater—for the pools and rivers below it seawards. The largest spring fly for that locality is dressed on a hook about two inches in length; the largest spring fly for the upper Blackwater is half an inch shorter. All these flies are to be varied in size according to the season. Summer and low-water flies are very small—grilse and white trout size, on hooks, No. 5, 6, and 7 English. Lismore is an excellent salmon locality, at a very moderate ride either from Waterford or Cork.

No. 1. Grey body of donkey's fur (from the butt of the ear) or hedgehog's fur, silver tinsel, gold-colour tip; tail, a few sprigs of mallard and golden pheasant breast-feather; a darker shade than tip of gold colour under the shoulder; blue or blood-red head; wings, mixed fibres of golden pheasant tail and breast-feathers, mallard and brown turkey; flyers or feelers, of blue macaw.

No. 2. Body, light brown olive fur and hackle, gold tinsel; tail, same as before; golden yellow tag, a very short joint of grey fur between the tag and olive fur; wings as before, jay hackle outside them; blue or deep-red head.

No. 3. Amber colour tag; tail as before; one third the body next the tail grey fur, remainder dark bright green fur and same coloured hackle; blood-red head; wings as before, with the addition of some green peacock sprigs.

No. 4. Tag, golden yellow silk, close to which two turns of black ostrich harl; body, claret or puce silk, over which a golden olive hackle and silver tinsel; jay round the shoulder outside the wing, which must be rather gaudy, and have a few fibres of red parrot feather; head, black ostrich.

Spring Flies for the Upper Blackwater.

No. 1. Gold colour silk tag; body, squirrel and hedgehog's fur mixed; green olive and blood-red hackle over body; silver twist, pale yellow and blood-red hackle laid side by side under shoulder; wings, fibres of the golden pheasant breast-feathers, mallard, turkey, blue macaw, red and green parrot and green peacock; black ostrich head.

No. 2. Orange silk tag, near it black ostrich

harl; body, four joints of equal proportions; thus, brown seal's fur and hackle, blue ditto, grey fur and hackle, brown seal's fur and hackle, orange hackle under shoulder, the first brown joint ribbed with gold, the remainder with silver tinsel; black ostrich head.

No. 3. Tag, blood-red fur; next, a short joint of deep bright orange silk and hackle; a small blood-red hackle laid next, then a long joint of dark sea-green fur and hackle, ribbed with gold; blood-red hackle under shoulder; black ostrich head; wings as before.

These three flies should be dressed on hooks about 1½ inch in length, and at low water shorter. Their tails should be of fibres of golden pheasant, light blue macaw, green and red parrot, mallard and blue peacock harl.

Summer Flies for the Upper Blackwater.

No. 1. Body, grey fur and hackle, and ribbed with silver tinsel; tag and head, blue; jay under shoulder; wings, mallard, blue peacock fibres, golden pheasant breast-feathers; and two sprigs of blue macaw for flyers.

No. 2. This fly is called 'The blue Jay,' and is a standard spring and summer fly on Irish waters. It is dressed thus:—Body, light-blue silk and gold tinsel, orange tag and black ostrich harl near it;

tail, sprigs of golden pheasant breast-feathers, mallard and light-blue macaw; blue jay hackle over body, blood-red hackle at the shoulder; wings, golden pheasant breast-feather, mallard, light-blue macaw and kingfisher; black ostrich head. Hook, No. 3, 4, and 5 English. This fly will kill in summer and autumn with orange instead of blue silk for body.

No. 3. Body, dark grey fur, brown olive and grey hackle run over body, gold tinsel; blue fur under shoulder; wings and hooks as before; and black head.

Lakes of Killarney—Spring Highwater.

No. 1. All shades of brown and olive bodies, with same coloured hackles, ribbed with gold; wings, brown mallard or turkey's feather; tail, rather heavy of fibres of brown mallard, golden pheasant's breast-feather, and blue jay.

No. 2. Tag, gold colour mohair and gold twist, then a lightish blue joint with grey hackle and no twist, half a grouse hackle laid next, remainder of body ant-brown fur and hackle and gold twist; jay under shoulder; wings, brown mallard and turkey, with a few sprigs of golden pheasant breast-feather; black head. An excellent general fly.

Killarney Summer Flies.

Besides ant-brown fur and hackle and brown mallard wings, blue hackles over black bodies and wings, as before. Hare's ear and orange mohair mixed, golden olive hackle and wings, as before. Hare's ear and green golden olive hackle for body and wings, as before. Very dark brown olive fur and same coloured hackle for body and wings, as before.

Flies for Waterville, County Kerry.

No. 1. Body, fiery-brown mohair, same coloured hackle, gold twist, and a small claret hackle round the shoulder; wings, mallard, blue macaw, and golden pheasant neck-feathers neatly mixed; tail, mallard, red ibis, blue macaw, and golden pheasant neck-feather, a fibre or two of each, and black ostrich head. Hook, small.

No. 2. Body, dun fur, ribbed with silver twist and blue dun hackle over; bright yellow tag, a little yellow mohair at the shoulder; wings, tail, head, and hook as before.

No. 3. Body, claret pig's hair, ribbed with gold, black cock's hackle, yellow tag and a roll of black ostrich harl above it, yellow pig's hair at shoulder; wings, tail, head, and hook as before.

The lake of Waterville and the small river

running out of it, distant from Killarney about thirty miles, afford capital sport for salmon and sea-trout (the latter the finest, perhaps, in the world) from about the first week in June until the end of the season. There is good accommodation to be had at the village of Waterville, close by the lake, which is a noble sheet of water, eight or nine miles in length. I strongly recommend the rivers of Kerry to the English angler.

Sutherlandshire Flies.

For the Shin.—No. 1. Body, yellow mohair, to be ribbed with gold twist and black hackle; tag, yellow floss-silk tipped with gold; tail, a small topping; blue jay at shoulder; wings, brown turkey or kite tail-feather, mixed with golden pheasant tail and neck-feathers, guinea-hen and teal, and a topping bending over the whole; blue and yellow macaw feelers, and blue mohair head. Hook, No. 6.

This is a deadly Sutherlandshire fly, particularly for the Shin and Laxford. It has been to me a plentiful purveyor of salmon. It is a model of a subdued gaudy fly, and will prove a general killer in rivers of moderately high water. The salmon-fisher should never be without it.

No. 2. Body, blue floss-silk, ribbed with silver twist; tapering orange tag, and topping for tail;

guinea-hen hackle wound close by the silver twist, and thickening and lengthening up to the shoulder; wings, a full mixture of golden pheasant tail and neck-feathers; guinea-hen and teal feathers, blue and yellow long macaw feelers, and bronze peacock harl head. Hook, Nos. 5 and 6.

This fly is as deadly as the latter, and better suited for day-fishing in deep clear pools and streams. As a general fly, I have the highest opinion of it, and should never fail to try it wherever I roamed, by known or unknown rivers.

No. 3. Body, orange floss-silk; yellow tag, tipped with silver twist; above it black ostrich and red tag; to be ribbed with silver tinsel and gold twist; grouse hackle at centre of the body; teal hackle under shoulder. Wings, two neck-feathers of the golden pheasant, over which a mixture of brown and black, and white spotted turkey tail-feather, with fibres also of the golden pheasant tail-feather, and brown mallard; feelers, blue and yellow macaw; yellow mohair over the roots of the wing and black ostrich head; tail, a golden pheasant topping. Hook, No. 4. At this size the fly is a large one, fit for the Shin in the spring. For the summer, it should be made on hooks three sizes smaller, and will kill best morning and evening.

For the River Inver.—No. 1. Body, pale-green floss-silk; orange tag, tipped with silver twist,

and between them black ostrich tag; to be ribbed with gold tinsel, silver twist, and grouse hackle; the wings mixed thus:—brown spotted turkey tail-feather, peacock's wing, red ibis, teal, guinea-hen, and silver pheasant dyed yellow; blue and yellow macaw feelers, and black head; small topping for tail. Hook, Nos. 6 and 7.

No. 2. Body, black floss-silk; crimson tag, tipped with black ostrich and gold twist, ribbed with silver tinsel and twist, and black hackle; crimson mohair, picked out under wings, which are to be a mixture of cream-spotted turkey tail, guinea-hen, and teal feathers, golden pheasant neck and tail-feathers, and two or three fibres of bustard; black ostrich head, and topping for tail. Hook, Nos. 6 and 7.

For the River Brora.—Body, a mixture of blue, green, and yellow pig's hair, silver tinsel, black hackle; wings, peacock wing-feather; tail, red mohair. Hook, Nos. 7 and 8.

For the Oikel.—No. 1. Body, brick-brown floss-silk; red and black ostrich tag, tipped with silver twist; to be ribbed with silver tinsel and gold twist; grouse hackle full under the wings, which are to be of the following fibres: spotted turkey dyed yellow, brown turkey, teal, blue macaw, red ibis, and bustard; black ostrich head, and topping for tail. Hook, Nos. 7 and 8.

No. 2. Body, yellow-brown pig's wool; tag,

black ostrich, tipped with gold twist; to be ribbed with gold twist; black-red hackle over body, and blue mohair picked out at the shoulder. Wings, a golden pheasant neck-feather; alongside of it an entire teal's feather, brown spotted turkey, guinea-hen, and wood-duck fibres; black ostrich head, and small topping for tail. Hook, Nos. 8 and 9.

For the Carron.—No. 1. Body, black floss-silk; orange tag; ostrich and silver tip; to be ribbed with silver tinsel and gold twist; grouse hackle over body. Wings, turkey feather dyed yellow, mallard, silver pheasant tail, guinea-hen, teal, and Argus pheasant fibres; black head, and small topping for tail. Hook, Nos. 8 and 9.

No. 2. Body, black floss-silk; orange and black ostrich tag, tipped with silver twist; to be ribbed with silver twist; black heron hackle; wings, bustard, pea-fowl, silver pheasant, and teal feathers; feelers, blue and yellow macaw; black head, and two fibres of bustard feather for tail. Hook, No. 9.

For the River Kirkaig.—Body, puce mohair; tag, red ditto, tipped with gold twist; to be ribbed with silver tinsel, black hackle, and a bit of orange mohair picked out at the shoulder; wings, bittern and guinea-hen; black head, and orange mohair tail. Hook, No. 8.

Flies for the Spey.

No. 1. Body, claret floss-silk, with some deep yellow-brown pig's hair towards the wings; orange and black ostrich tag-tipped with silver twist; to be ribbed with silver tinsel and gold twist, claret hackle from tail to shoulder, and round the latter grouse hackle; wings, two golden pheasant neck-feathers, and a topping, light-brown spotted turkey tail and Argus pheasant, guinea-hen, and golden pheasant tail-feathers; over the roots of the wings yellow mohair; black ostrich head, and topping for tail. Hook, No. 3. This is a large-sized spring-fly.

No. 2. Body, puce floss-silk, to be ribbed with gold and silver tinsel and yellow-green silk thread, and over all one of the pendant feathers of a brown cock's tail. Wings to lie along the back of the hook, and they are to be made of the fibres of a large brown spotted feather from the turkey's tail. Hook, exceedingly long in the shank—as long as that of a No. 1 hook, but to be finer in the wire and smaller in the bend. A large mackerel-hook, if well tempered, would do. This is the old standard Spey spring-fly.

No. 3. Body, near the tail, fiery-brown floss-silk; towards the head, from the centre of the body, orange floss-silk, ostrich tag tipped with silver twist. The body to be ribbed with silver

tinsel and gold twist, orange hackle from tag to wings, under which blue jay hackle; wings, a golden pheasant neck-feather, and fibres of Argus pheasant, and slightly spotted cream-coloured turkey tail-feathers; black head and red tail. Hook, Nos. 4 and 5. This is a standard Spey-fly for May and June.

Standard Welsh Flies.

No. 1. Body, dingy yellow mohair, with same coloured very full hackle, and ribbed with gold tinsel; wings, two back or bittern neck-feathers, tied on Tweed fashion. Hook, No. 5. The hackles of Welsh flies are generally very long in the fibre, and are wound closely, without clipping their points, from almost the bend of the hook upwards to the wings.

No. 2. Body, light-brown coloured mohair, ginger hackle, gold twist and bittern feathers for wings. Hook, No. 6.

No. 3. Body, dingy orange mohair, furnace hackle, gold tinsel, and full mallard wings. Hook, Nos. 5, 6, and 7.

No. 4. Body, a mixture of grey, blue, and yellow mohair, with a long-fibred darkish blue dun hackle struck closely from the tail up to the wings, which are to be of light-brown spotted turkey tail-feather; tail, a few short bustard feather fibres. Hook, Nos. 6 and 7.

Local Welsh Flies.

No. 1. Body, orange pig's hair; legs, two yellow-dun hackles, struck up from the tail to the shoulder; wings, light brown-yellow turkey tail-feather; tail, a bit of red ibis, and a small widow's crest-feather; head, orange-coloured wool. Hook, No. 3. This fly is only fit for full water, clearing after a flood.

No. 2. Body, turbid-orange wool; legs, a dun hackle, dyed the colour of the body; wings, a light, spotted, turkey tail-feather, dyed yellow; tail, red toucan, and brown turkey tail-feather. Hook, No. 5.

No. 3. Body, dark orange worsted, or pig's wool; legs, two dark-dun hackles rolled up from tail to shoulder, round which a yellow-green hackle; wings, dark-brown spotted turkey tail-feather; tail, neck-feather of the golden pheasant drawn in short. Hook, as before.

No. 4. Body, dark orange wool ribbed with silver twist; legs, two grizzled-dun hackles from tail to shoulder; wings, two body-feathers of the bittern; head, green peacock sword-feather, one or two fibres of which are to be left hanging from the butt of the wings; tail, short red and blue macaw feathers. Hook, No. 6.

The four following flies are great favourites in

Wales, and are known there by the name of 'fern-flies.'

No. 1. Body, yellow worsted mixed with a small quantity of light buff; legs, dun cock's hackle; wings, pea-hen's back or rump-feather, dyed yellow; tail, crimson worsted. Hook, No. 5.

No. 2. Body, dark buff, or salmon-coloured wool; legs, dun hackle, dyed olive; wings, two bittern feathers dyed yellow; tail, mallard, dyed yellow. Hook, as before.

No. 3. Body, deep yellow mixed with a little orange worsted; legs, dun hackle, dyed yellow; tail, grey and yellow dyed mallard-feather mixed. Wings and hook, as before.

No. 4. Body and legs, a sooty yellow; tail, widow's crest-feather. Wings as before, and hook, No. 6.

The feathers for the wings of fern-flies are dyed thus:—Dissolve in a pint of boiling water an oz. of alum. Steep in it the feathers for three or four hours. Boil in the same quantity of soft water for half an hour half an oz. of fustic, and the same quantity of turmeric. Remove the feathers from the alum-water and immerse them in the yellow dye, and they will soon assume the required colour.

For all the northern rivers of Scotland, for the north-western, western, and southern rivers of Ireland, the best general fly is the one I have

called ONDINE. — Body, blue peacock, closely ribbed with fine gold twist; two joints of green trogan feather, and one of short red orange hackle under the shoulder; over the butts of the wings, blue jay; small light-blue tag, gold tip, and brilliant little topping for tail; wings, a careful mixture of fibres of bustard, silver pheasant, yellow and blue macaw, teal, guinea-hen, and golden pheasant tail and neck-feathers, surmounted by a topping; feelers, blue and yellow macaw, and bright-blue silk head. Hook, Nos. 7 and 8.

Description of Flies on Frontispiece.

No. 1. THE GOLDFINCH. — This is a noted salmon-fly suited for low spring, summer, and autumn water in the Shannon. It is a graceful model of a gaudy fly, simple in its brilliancy. It will kill well at Ballyshannon, and in most rivers of dull mornings and evenings. It is too bright for clear shallow water. It is a standard fly for grilse-fishing in the Shannon. It is made thus: —Body, gold-coloured floss-silk; black silk tag, tipped with gold tinsel; ginger hackle and gold tinsel over body; blue jay at the shoulder, and kingfisher over the butts of the wings, which are to consist of eight or nine golden pheasant toppings of middling size. They should project

by half an inch beyond the extreme bend of the hook. Feelers, red macaw; head, black ostrich; tail, golden pheasant topping. Hook, Nos. 5 and 6.

This fly may be advantageously varied, thus: Black floss-silk for body; tag, gold colour, tinsel and hackle as before; no blue jay or kingfisher's feather, and head light puce fur. By dressing it in this manner it will not be so gaudy as before.

No. 2. THE BRITANNIA. — Body, orange pig's hair, ribbed with gold and silver twist; tag, black ostrich harl; over the body a scarlet or blood-red hackle, and a purple one at and above the shoulder; two toppings for tail; wings, two shovel-duck feathers, four toppings, a blue chatterer's feather each side, and outside and a little under them some silver pheasant tail-feather; small black head. Hook, Nos. 4 and 5.

This fly in large rivers, or in those in which fish take large flies, I consider the best of all general flies known to me. I do not think large salmon will refuse it in any river in the world, when water is high and slightly discoloured by recent floods. As Britannia is the ruler of the waves, this namesake of hers is a ruler of the waters.

No. 3. THE ERIN-GO-BRAGH.—Body, very long, like those of the large-sized natural dragon-flies, and to be made of green floss-silk, and ribbed

with gold tinsel and joints of green peacock harl from tag to wings; tag, light yellow and deep orange silk; over body, a dark green or black hackle; round the shoulder, deep orange hackle; wings, two toppings mixed with Argus pheasant tail-feather, brown mallard and wood-duck, and a very little blue jay over the butt of the wings, which are to lie long, thin, and delicately over the hook; head, bronze, peacock harl; tail, golden pheasant topping. Hook, as long in the shank as a No. 3, but to be of finer wire, and as small in the bend as a No. 6 hook.

Standard Sea-Trout Flies.

No. 1. Body, yellow floss-silk, gold tinsel, black-red hackle, small topping for tail, blue jay at the shoulder, a neatly mixed gaudy wing, and black ostrich head. Hook, C Dublin, or 7 English.

No. 2. Body, blue floss-silk, blue hackle and silver tinsel, small topping for tail, blue jay at the shoulder, and wing and hook as before.

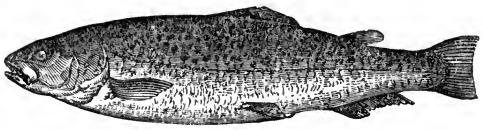
No. 3. Body, black mohair, black hackle, silver tinsel, yellow tag, and small topping for tail; yellow mohair head, picked out to hang down the breast of the fly; wings, two toppings, mixed with teal and guinea-hen feathers. Hook, Nos. 7 and 8 English.

No. 4. Body, peacock harl, gold tinsel, amber

hackle and small topping for tail; mallard wing, and hook as before.

The best sea or white trout flies for the Kerry rivers, and the best general flies for that amusing fish, are those with dark bright fiery-brown bodies, blue and fiery-brown hackles over body, gold-coloured necks, and plain wings of brown mallard, turkey, grouse, or landrail's wing-feather. The two last feathers suit small flies best.

Salmon, when they refuse the fly, may be caught by spinning with a natural or artificial fish—by trolling, as it were, with the sand-eel, shrimp, prawn, or a small bunch of well-scoured dew-worms. However, the artificial fly is the only sportsman-like lure for salmon and salmonidæ.



THE COMMON TROUT.—*Salmo fario.*

THE common trout in its prime is unquestionably the handsomest and most delicately flavoured of our river fish, and, after the salmon, the best game the angler can pursue. It grows large or small, differently marked, coloured, and shaped, according to the qualities of the water it inhabits, whether those qualities be inherent or contingent. The Thames trout is often caught as large as the middle-sized salmon, and is held, by the palates of some, superior in flavour. In the small streams of Ireland, Scotland, and Wales, the common trout is remarkably small. In the rivers of the English midland counties, the trout averages a pound in weight, but throughout the trout streams of the empire, more trout are caught under that weight than above it. A common trout in full season, weighing four pounds, is a royal fish; and a trout caught in the Dove during the drake-season, and weighing from one pound to two, is a princely one. If you want to see a very handsome

dish of trout,* you will see it every day of the year at Chatsworth, in Landseer's 'Bolton Abbey in the Olden Time.' Trout should never be taken by the angler from September† to March. In the intervening months they are either spawning or out of condition. I never saw a trout in prime season before May. In June trout are in their best condition.

In the spring months trout are found in the shallows and rough streams; in the summer months they seek deeper water, and the best fish are then caught in pools with the fly or worm, on gloomy breezy days, when the water's surface is strongly ruffled. They are also found in whirlpools and holes into which sharps and shallows fall, and near to locks, flood-gates, rocks, large stones, weirs, under bridges, or between two streams

* The trout of the Wandle, particularly those of the mill-tails, are model fish. Though thick, they are not burly, and they convey to my mind the best idea of a brook trout. Those that feed under the cover of trees, or lie *perdus* under banks or artificial 'hides' during sunshine, are darkly brown, and yellow; those that frequent the unshaded streams, with clear sandy bottoms, are of a silvery hue: they are, however, of the same family, though one be ebon and the other pearl-hued. Night and morning are children of day.

† In my opinion, trout should not be taken after the month of July. Many of them then are big with spawn, and the eggs of the earliest spawners are always the most prolific, for the process of incubation is less injured by frost and floods, and other winter casualties. The trout season ought to be fixed from the 1st of April to the 1st of August.

running from under their arches, and likewise in the reflux of streams where the water seems to boil, and in the decline of summer they are to be found near mill tails. In September they run up to the shallow parts of streams, and enter brooks and even ditches to spawn. As food they are then, except in a few late rivers, good for nothing, and are so weak that they afford the angler no sport. In the early spring months trout will take the worm all day long, but in the summer months, with the usual weather, the artificial fly is the best bait during the day hours. In the morning and evening the worm and minnow will kill well. Spinning the minnow in the way described in the chapter on trolling is by far the best way of using that bait for trout. In fishing with a worm for trout, do not use a float, but allow your worm to trip along a couple of inches from the bottom of the water, your bottom-line being shotted so as to prevent your bait from being carried away by the stream. Sometimes spin your worm slowly across or against the stream, by means of a swivel on your foot-line, which should be of the finest and best gut. As a general rule, your tackle cannot be too fine for trout-fishing. Keep away from the banks, make as little noise as possible, and angle with every sort of caution and delicate handling for trout, otherwise you will not meet with success.

When angling for trout with any tripping or running baits, be they worms, caddies, gentles, or salmon-roe, it is necessary to have as many shot on the line, about nine inches from the hook, as will readily sink the bait; because, if the stream be rapid, the bait is carried away without coming near the ground, and consequently few trout will take it. While thus fishing with the running line, keep as far from the water as you can, and let the bait be carried down into the trout haunts, and when a fish begins to bite, do not strike the first time you feel a slight tug, but rather slacken the line, and when you feel one or more sharp tugs together, then strike smartly. If it is a heavy fish, do not be too eager to land it. To these directions it may be added, that when a lob-worm is used as a tripping bait, but little lead is necessary on the line, the weight of the worm being nearly sufficient, and the absence of shot or lead advantageous. Allow the worm to roll of itself, or rather with a little less speed than the current, over the ground, which it will do in a natural manner if unencumbered with too much lead; and where there are large trout this bait well managed proves irresistible. As a general rule, lob-worms are most adapted for deeps, and for coloured or thick waters, and red worms or brandlings are best for brighter waters moderately profound. It will be found an excellent plan,

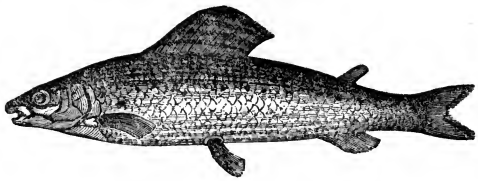
when a bank overhangs a supposed trout hole, to cast a worm over the edge of it without approaching near. The line should not be shotted, the worm should roll naturally off the bank into the water, when, if a trout be there, your bait will be taken almost to a certainty. Trout are to be taken in bright water and weather, with the worm, when they will not touch either minnow or fly; and there is certainly more art and sportsmanship in fishing with a worm, than some people imagine. When to bright weather are added clear and shallow streams, much artifice must be employed. Your tackle must be very fine, your hooks small, and your worms well scoured and lively. A winch will enable you to vary the length of your line as occasion dictates, and though in general the line must be as long as, or longer than, your rod, yet where there are trees and other obstructions, you may, by shortening it, get at the holes, and still contrive to keep out of sight, which you must do whether you kneel, stoop, or stand; and then, if you can neatly and lightly drop in a lively brandling near the likely holds or haunts in a strong stream, especially near the top of it, let the sun shine ever so bright, be the wind rough or calm, and the water ever so clear, you will kill trout when they are not to be caught with any other bait.

Thames trout are to be caught best by spinning

the gudgeon, dace, and bleak. In the summer months they will take large artificial flies. The best are Blacker's 'winged larva,' very large red and furnace hackles, with winged flies made of a reddish feather, and red, brown, and yellow bodies. In the evening, like nearly all the salmonidæ, they will take artificial moths.

The salmon trout, bull trout, and white trout or sewin, are all to be taken with small salmon flies or lake flies; an excellent list of which I have already given under the head of salmon. The winged larva will be found a deadly bait for those fish. They may be caught also with the worm, or by spinning a small natural or artificial fish. A very large *coch-y-bonddu*, ribbed with gold or silver tinsel, is a capital bait for the white trout or sewin.

In salmon and trout fishing, great success is obtained by wading. The best waterproof costume for the purpose is made by Cording and Co., Temple Bar. Your fishing-boots for the bank should be made by Medwin of the Regent Circus, and your fishing-socks and ankle-boots for wading by the Messrs. Cording. Order them similar to 'Ephemera's,' and the above tradesmen will know what you want.



THE GRAYLING.—*Salmo Thymallus.*

THE grayling is one of the most gracefully-shaped and coloured of the salmonidæ. It is a favourite fish of mine, takes a fly boldly, but does not show much resisting courage after having taken it and been hooked. It is a gamesome fish, but not a 'game' one. The grayling very rarely exceeds three pounds in weight, and far greater numbers are caught weighing under one pound than more. They are not, like the trout, indigenous to this country; and very probably, on account of their being in season in the winter, when trout are not, and being an excellent gastronomic substitute for that fish, they were brought from the continent to this country by the monks, or some other good judges of good things, that those sybarites might not be without a fresh-water delicacy during the most festive part of the year. The rivers of the midland counties are more celebrated for grayling than those of any other part of the empire. The grayling is not found in Ireland or Scotland.

Though some fancy they emit a smell of thyme, I think they do not. They smell rather of cucumber than of any other vegetable. Mr. Blaine says, 'The name of *umbra* which this fish bears has a far better derivation than that of *thymallus*, for it is so swift a swimmer as to disappear like a passing shadow. Graylings are in great esteem, and their flesh is white and palatable nearly all the year. They are in season from September to January (some say they are best in October, others in December), and they cannot be dressed too soon after they are caught. They lurk close all the winter, and begin to be very active and to spawn in April, or early in May; at which time, and during the summer, near the sides and at the tails of sharp streams, they will take all the flies that trout are fond of. They rise better than the trout, and if missed several times, will still pursue; yet, although they are so sportive after the fly, they are an inanimate fish when hooked, and the sides of the mouth are so very tender, that unless nicely treated, when struck, the hold will frequently be broken. In September they retire in shoals to the lower end of still holes.'

I have lately received a very good account of the grayling from Mr. Henry George of Worcester, the very efficient secretary of an association established in that city for the preservation of the fish of the Severn and its tributaries; and I here

willingly insert it, regretting that I have not space to make use of his remarks touching the trout and salmon of the Teme. Mr. George says, 'Of all rivers running through "merry England," I think none produce such fine grayling as the Teme. Probably a few larger fish may be taken in one or two other rivers which are better protected, but for perfection in shape, colour, and flavour none can compete with Teme grayling. They are in season from September to Candlemas, and even later; but the months of September and October, if the weather be favourable, are the best for the fly-fisher. A Teme grayling, in the height of condition, in October or November, when first taken out of the water, is one of the handsomest and most symmetrical fish that rise at the fly in our beautiful streams, and if laid upon the hand, and looked at horizontally, presents the most beautiful purple or violet hue from snout to tail. The snout is sharp, and the eye lozenge-shaped; this fish is hog-backed, and the back is of a dark purple colour, with small black square spots on the sides. The mouth (the under part of the lower jaw) and belly touch the ground together; the latter is brilliantly white with a narrow edge or lacing of gold, extending along each side from the pectoral towards the ventral fin, and the tail, and pectoral, and ventral fins are of a beautiful purple. The dorsal fin,

being very large, and standing up like that of the perch, is a perfect picture, covered with scarlet waves and spots intermingled with purple. The little velvet (adipose) fin on the back, near the tail, is also dark purple, and the fish smells like a cucumber. At the season I am speaking of, grayling rise freely at the fly; but it requires some experience and judgment to suit their tastes. The heads and tails of fords with a gravelly or sandy bottom are their favourite haunts. They prefer rather deep water to shallow. The grayling takes a maggot very eagerly, and is, I think, a much more gamesome fish at the fly than the trout. I have frequently had them rise at my flies a dozen times in as many successive casts. They are not so easily alarmed as the trout, and many a time have I made half a dozen changes in my flies, and cast them all kinds of ways over a fine grayling, which kept continuously rising all the time, before I could induce him to look at them. They are rarely ever taken with the minnow. The grasshopper, when the water has been for some time low and fine, is an excellent bait; and I find the artificial grasshopper much more killing than the natural one, perhaps from the greater facility with which it can be used. A little red worm is also a good bait for grayling when the water is a little disturbed. The spawning time of the grayling is the month

of April, sometimes a little earlier, at which season they come on the fords, and are then easily taken with the fly, though, of course, at such time they ought to be strictly protected. After spawning they retire into the deeps, and the angler sees very little of them for a long time, and for this reason they are supposed to be a considerable time recovering, though I have never found them rendered so much out of season by spawning as some other fish. The grayling does not grow very fast. Those spawned in spring are three or four inches long in autumn, and in the following autumn about four or five ounces in weight; and in the autumn after that, when about two and a half years old, they weigh from eight to twelve ounces. Grayling have been caught in the Teme, near Ludlow, weighing four pounds a piece, though one half that weight is rarely captured in that river now.'

Sir Humphrey Davy says grayling grow much faster, stating that those hatched in May or June become in the following September and October nine or ten inches long, and weigh from five ounces to half a pound. The next year he says they arrive at from twelve to fifteen inches in length, and weigh from three-quarters to a pound. I think Sir Humphrey wrong, and Mr. George right. I should even think their growth is slower than that stated by Mr. George. Grayling

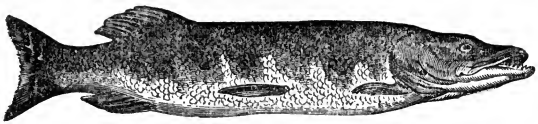
require water of a milder temperature than trout do: water of the mean temperature of the atmosphere. They do not thrive in mountainous streams, and could never stem their rapid torrents or surmount their natural obstacles as salmon do. They cannot bound out of the water, and never jump at a bait after the manner of trout. 'The grayling rises, however,' says Mr. Ronalds, 'with great velocity, and almost perpendicularly to seize his prey, at the top of the water, and descends as quickly after making a summerset, for the performance of which feat, the figure of his body, and the great dorsal fin, seem well adapted. The following just remarks of Sir Humphrey Davy should be attended to by the angler:—'Besides temperature,' he says, 'grayling require a peculiar character in the disposition of the water of rivers. They do not dwell, like trout, in rapid shallow torrents; nor, like char or chub, in deep pools or lakes. They require a combination of stream and pool; they like a deep and still pool for rest, and a rapid stream above, and gradually declining shallow below, and a bottom where marl and loam are mixed with gravel; and they are not found abundant except in rivers that have these characteristics.' The largest grayling I have ever caught I found in the somewhat deep, rapid, and smoothly running tails of pools just before the formation of some rough stream, and in swift

sheets of water just above the heads of weirs. I have killed more grayling with the fly early in April than in any other month. The flies they like best are duns and palmers, tipped with tinsel, and, when the water is clear and smooth, they will take dun midges by sinking them on a very fine casting-line beneath the water, and allowing them to float with the current. I have killed grayling in the heart of winter, with frost and snow on the ground, when the water was not tinged wth 'snow broth,' but ran low and clear. The time was from twelve to two o'clock, with the sun out, and the atmosphere tolerably temperate. The best autumn baits for grayling are gentles and grasshoppers. The latter is the most deadly bait, and the way of using it has been already mentioned in the chapter on baits.

Mr. Flinn, fishing-tackle maker of Worcester, who is a good practical angler, recommends the following flies for grayling. No. 1.—Wings and legs, a small silvery blue hen's hackle-feather; body, pale green silk or mohair, with a small portion of orange floss silk left hanging at the tail. Hook, from No. 10 to 14. No. 2.—Wings and legs, a small blue hen's hackle; body, pale yellow with orange tag, as before. Hooks, same size. No. 3.—Wings and legs as before, orange body and red tag. No. 4.—Wings, the spotted feather of the partridge tail; body, hare's ear; legs, par-

tridge hackle from the back of the neck; tail, two fibres of the feather used for the wings; rib with orange or yellow silk, and for a dark day with gold twist. This is also a famous trout fly, and, if dressed large, will kill in lakes.

The same authority recommends the following partly artificial and partly natural bait for grayling:—the artificial portion should weigh one pennyweight. It is to be dressed on the shank of a No. 6 sneck-bent hook cast into lead, and covered with light green silk, a split straw to be on either side, ribbed with orange or yellow silk. On the bend of the hook put a real grasshopper, its legs clipped off at the first joints; angle with a small quill float, and keep the bait moving in the water, sinking it and raising it, drawing it towards you and allowing it to float from you.



THE PIKE.—*Esox Lucius.*

THE pike, commonly called jack when under three or four pounds in weight, is a well-known fish; like many of us, better known than trusted or treated. He is a greedy, unsociable, tyrannising savage, and is hated like a Blue Beard. Every body girds at him with spear, gaff, hook, net, snare, and even with powder and shot. He has not a friend in the world. The horrible gorge hook is specially invented for the torment of his maw. Notwithstanding, he fights his way vigorously, grows into immense strength, despite his many enemies, and lives longer than his greatest foe, man. His voracity is unbounded; and, like the most accomplished corporate officers, he is nearly omnivorous, his palate giving the preference, however, to fish, flesh, and fowl. Dyspepsia never interferes with his digestion; and he possesses a quality that would have been valuable at La Trappe—he can fast without inconvenience for a se'nnight. He can gorge himself then to beyond the gills without the slightest derangement of the stomach. He is shark and ostrich combined.

His body is comely to look at; and if he could hide his head—by no means a diminished one—his green and silver vesture would attract many admirers. His intemperate habits, however, render him an object of disgust and dread. He devours his own children; but, strange to say, likes better (for eating) the children of his neighbours. Heat spoils his appetite, cold sharpens it; and this very day (30th December 1846) a friend has sent me a gormandising specimen, caught by an armed gudgeon, amidst the ice and snow of the Thames, near Marlow. I envy the pike-constitution.

Jack and pike spawn either in March or April, according to the mildness of the season and the temperature of the water. They retire for the purpose of procreation in pairs from the rivers, into creeks and ditches, and there, amongst aquatic plants, the female deposits her ova. The male of course accompanies the female; and when his milt has fecundated the ova, the pair return to deep water for the benefit of their own health, and quite regardless of the eggs, which they have left to be hatched by time and tide. Young pike grow rapidly, and it is said by the end of the first year attain a weight of two pounds. I doubt it, and am persuaded that afterwards pike do not each add every year a pound to its weight. They may more than do so for a few years, but the time comes when their growth is stationary, size varying ac-

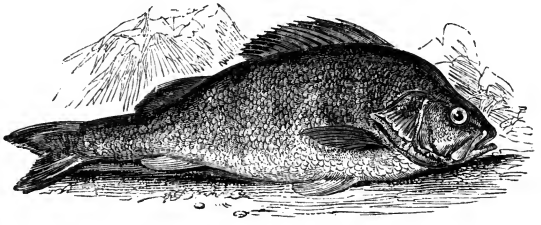
cording to their good or bad condition, which is regulated by food and the season of the year.

The largest pike I ever saw weighed thirty-four pounds; but I have seen several each weighing between twenty and thirty pounds. The largest pike recorded to have been killed in the British Islands was one taken in the Shannon, and weighing ninty-two pounds. The head of one weighing seventy-two pounds, and which was caught with an artificial fly, is still to be seen at Kenmore Castle. The celebrated Colonel Thornton asserts that he killed a pike in Loch Alva, Scotland, that weighed fifty pounds within two ounces. I should consider that the largest pike in the empire are to be found in the lakes and lochs of Ireland and Scotland; and that the greatest numbers are to be found in the meres and ponds of England. The anecdotes of pike are more numerous and astonishing than those of any other of our river fish. I do not credit many of them. I believe that pike digest their food in a few minutes, and that in consequence their voracity is prodigious and their growth great. I will recount two or three reported instances. In 1801, a hook baited with a roach was set in the manor pond at Toddington, Bedfordshire; the next morning a large pike was caught, which with difficulty was got out. It appeared that a pike of three and a half pounds weight was first caught, which was afterwards

swallowed by another, weighing thirteen pounds and a half, and both were taken. This story is barely probable, for I do not see how the hook that caught the lesser pike should afterwards hook the larger one. It is recorded that a large pike put into a canal full of fish destroyed them all within twelve months, except one carp, weighing nearly ten pounds, which though too large for the pike to swallow, showed by its scars that he had attempted to do so. I readily believe this anecdote. A pike caught in the Isis was found to contain a barbel of six pounds, and a chub of more than three. These nine pounds of food formed nearly a third of his own proper weight, which was thirty-one pounds and a half. I believe this; for I once caught in a net a pike weighing about four pounds, from whose mouth the tail of a trout weighing a pound was projecting. The pike had been caught in the purse of a drag-net with several trout, and whilst with them in the net had, no doubt, seized the one which was found sticking in his throat.

Pike are to be found in ponds, bog holes, ditches, canals, and weedy rivers. Their best haunts are in still, shady, and unfrequented waters, having a sandy, clayey, or chalky bottom. They grow larger in ponds and pools than in open, sharp-running rivers. From May to October they are usually found near or amongst

flags, bulrushes, and water docks, and under the *Ranunculus aquaticus*, when that plant is in flower. They are seldom found where the stream is rapid, but a retreat in the vicinity of a whirlpool or sharp bend is a favourite locality for them. From March to the end of May they resort to back waters that have direct communication with the main stream. As winter approaches, they retire into the deeps, under clay banks, or where bushes impend over the water, and where stumps and roots of trees offer them a stronghold. How they are to be best caught I have taught in the chapter on trolling. They may be taken with various artificial baits, fish, frogs, mice; but the best of all artificial baits, save the Archimedian and flexible ones, is a large gaudy artificial fly, or a colossal imitation of the dragon-fly.



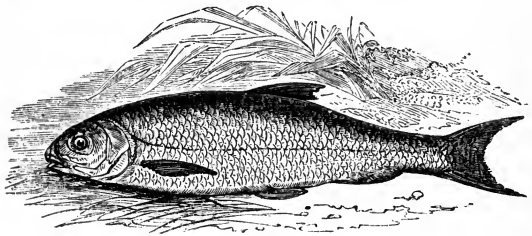
THE PERCH.—*Perca fluviatilis.*

The perch is an excellent river fish, bites boldly, and when hooked fights to the last. Though

somewhat misshapen, his dress is handsome; but he seldom dresses better than in the Dutch oven or frying-pan. Perch generally spawn in March. They are gregarious, which is remarkable, since fish of their marked predatory character are generally solitary. They grow to a goodly size. I have seen them weigh four or five pounds apiece, and it is said that one caught in the Serpentine, Hyde Park, weighed nine pounds. A perch that weighs two pounds may be considered anything but a contemptible fish. Very fine perch are caught in the Thames from Richmond upwards, the largest being caught by spinning a minnow or gudgeon. That part of the Thames which lies between Richmond and Staines, and which is under the useful surveillance of the Thames Angling Preservation Society, affords capital perch fishing. The deep streamy parts are the best. Minnows, gudgeons, and worms are the best baits for perch. They will also take gentles, and, in docks and tideways, shrimps. On the whole, however, a good lively red worm is the best general bait for perch. You may angle for them from February to November, during which time nearly any sort of weather, except sunny and bright, is favourable. They bite well on gloomy, windy days. If you light upon a shoal of them and catch one, you may catch them all nearly, if you do not frighten them by rough

handling. Some say that, as regards the time, the perch bites best in the latter part of the spring from seven to eleven in the forenoon, and from two to six in the afternoon, except in hot and bright weather, and then from sunrise to six in the morning, and in the evening from six to sunset. In tidal rivers, however, and the waters immediately connected with them, as docks, sluices, &c., these general rules as to biting times do not apply; for it is there during the flow and ebb, when the natural food is principally on the stir, that perch are most greedily on the look-out for it, let the time be what it may. Perch lie about bridges and mill-pools; in and near locks; about shipping, barges, and floats of timber, in navigable rivers, canals, and in wet docks; in the still part of rivers, in back waters, in deep gentle eddies; in ponds about sluices, and the mouths of outlets and flood-gates, liking best sandy and gravelly bottoms. In deep waters and in docks, I recommend the paternoster-line. If you angle in docks, deep and subject to the tide, use four hooks on your paternoster, baiting the lowest one with a minnow, loach, or gudgeon; the next with a worm, the third with a shrimp, and the fourth or upper hook with a gentle. In fresh water a shrimp should not be used. Perch have been lately caught with large gaudy lake trout flies, sunk beneath the surface of the water. Fish for

perch with strong tackle, and get your prey out of the water as quietly and with as little disturbance as possible. If you fancy perch-poaching, act as follows:—get a very large wide-mouthed glass bottle; half fill it with clean water, and put a dozen lively minnows in it. Give them air by inserting a quill, open at each end, through the bung of the bottle, which sink in a pond, or in the whereabouts of perch in a river. The bottled minnows will attract perch to them. In about twenty-four hours or more after you have laid down your decoy, come with a paternoster-line, baited with live minnows or small gudgeons, and you cannot fail in capturing many of the assembled perch.

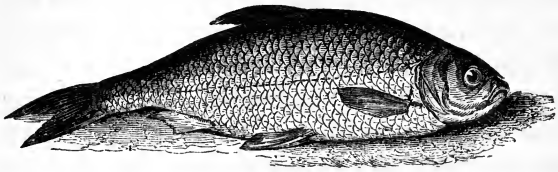


THE DACE.—*Cyprinus Leuciscus.*

This little yellow silvery carp serves as a practical primer to the young angler. He is a reckless little fellow, and will snap at your worm, gentle, or paste near the bottom of the water, or

jump at your fly on the surface with equal avidity. Dace are the best fish in the world to break in the young fly-fisher. They spawn in April, and are in condition again in May. They prefer the sides and tails of streams to still water, and are common to most of the large and small rivers of England. They thrive best in moderate-sized rivers. The dace of the Lea and Colne are larger than those of the Thames. In bottom fishing for dace, the best baits are gentles and pastes, and you must use very fine tackle. The best artificial flies for dace are red and black hackles, and small ant-flies. They will take willingly the flies recommended for grayling. A gentle placed on the bend of the hook will often render the artificial fly more attractive. Dace may be caught by dibbing for them with the live house-fly, the flesh-fly, and natural ant-flies. Generally speaking, dace delight in rapid currents, scowers, and eddies. The point of junction between two streams is a favourite resort for them, and they are seldom absent from mill-tails. In hot weather they retire into the deeps, and seek for shelter beneath aquatic plants and the boughs of trees. Near London, the largest dace are to be caught in the Colne, where they take the artificial fly well, and afford good sport, when trout are not on the rise. The scowers at Isleworth, Richmond, Thames Ditton, Hampton, Sunbury, Walton,

Weybridge, and Laleham, are full of dace, and the localities well adapted for the use of the artificial fly.



THE ROACH.—*Cyprinus Rutilus.*

This very pretty species of carp is a great favourite with London anglers, and by their skill in catching it they prove their superiority as bottom fishers. Roach spawn in May, and do not get into good condition again before the autumn months, which are the best months for angling for them. They do not like rough streams, and are generally found in easy swims, moderately deep, with a fine gravelly and sandy bottom. The best general baits for them are pastes and gentles, though they will take small worms, and very frequently small artificial flies. It is impossible to bottom fish for roach with tackle too fine. All of it must be light and delicate, and of the best material—rod, line, float, and hook. The foot-line should be made of single hairs, or at any rate of the very finest silk-worm gut. The rod

of Spanish cane, light and long, just stiff enough to strike promptly and delicately. Some of the London rods are too long, being from twenty to twenty-four feet in length. A rod from sixteen to eighteen feet is quite long enough for bank fishing; and one of twelve feet is sufficiently long for punt fishing.

Mr. Blaine pays a high compliment to the roach, saying, 'Roach angling offers much interest to the piscatory zealots, who are shut out from the high pursuits of fly-fishing. The roach is an elegant fish when taken, and it requires considerable skill to deceive it, whilst its game qualities are such that it contests the matter with the angler to the last, so as to yield no small triumph when landed. We have seen a roach of a pound in weight in a strong current in the Thames, raise the blood in the face of an angler of fair fame. They also, when in condition, bite freely; but we consider the principal hold they have, or ought to have, on the angler, is their great plenty, the numerous methods that may be employed to take them, to which may be added the time of the year that sport may be obtained with them, which is when few other fish yield any. From the very bottom of the water, every inch of the way up to the surface, they may be fished for in various manners; and when they are sunning themselves at the top they will take a fly with the

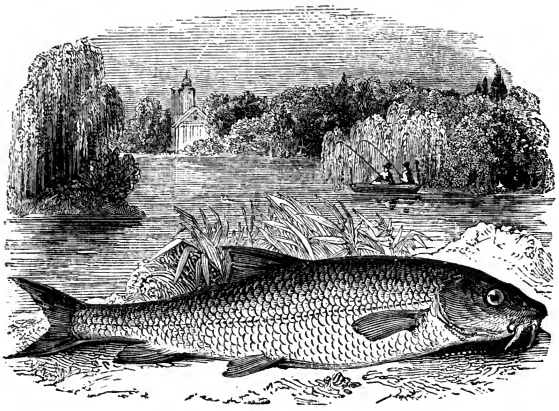
best. No fish whatever exerts the capabilities of the angler so extensively as this; even the grayling (whose versatility in yielding sport is great also) must nevertheless give place to the roach, a precedence which we think will always rank him as a distinguished member in the piscatory list.' For my own part, I think that if the roach could be caught with stout tackle, there would be an end to the rage for fishing for him. To be obliged to catch him with a single hair line and tender tackle, is the chief cause of all the excitement felt by the roach-fisher.

In the autumn and winter months you should use a very small hook, and very short in the shank. A line very lightly shotted, and the shots to be placed far from the bait. The link to which the hook is whipped should be of a single long horse-hair of a good colour, and the upper part of the line may be of two twisted hairs, or very fine gut. Use a neat quill float, or a very small and light cork one. From your float to the point of your rod, let there be as little line out as possible, eighteen inches or two feet, and keep the point of your rod perpendicularly over your float in the water. Doing so will enable you to perceive the feeblest bite, and to strike with effect. Do not fish too close to the bottom, and ever and anon draw your bait up to the surface of the water, and let it sink gently again. Ground-bait moderately

with the meal ground-bait, recommended in the chapter on baits, particularly if you are angling with paste. With whatever bait you angle, ground-bait with a similar substance. Captain Williamson says, 'You will find it proper to bait the place where you fish, with oatmeal a little browned over the fire, and then made up into balls with a small quantity of treacle. This draws them together far better than any other ground-bait I ever heard of. Throw a piece of it about the size of a marble, now and then, where your hook lies. It will gradually be dissolved, and attract numbers.'

Roach will take artificial flies, but not so well as the dace. They like them best when tipped with a gentle, and sunk a few inches beneath the surface of the water. Salmon-roe is a capital bait for roach in still waters. In the spring months small red worms are the best baits. Then, on the approach of summer and during it, caddies, larvæ, and bobs and grubs of all sorts. In autumn and winter, gentles and pastes. I will conclude with an excellent extract from Captain Williamson:—'When the roach lie in the tide-way, you must only expect them to bite when the flood comes in; especially at the first of it, when they commonly are very keen. If there are fish in the water, they will bite during the latter part of the ebb. At such times they lie chiefly on the

flat gravel sands, on the sides of streams, especially below bridges. In the evenings of very sultry weather, when a slight shower has fallen, they will take the common house-fly, either on the surface or at some depth. On the whole, I think that, next to the salmon-roe, you will have best success with gentles, cad-baits, and blood-worms. But, above all things, have fine tackle; that is, a small hook, on a well-chosen piece of superfine gut.' In striking at roach, never use any other motion than that of the wrist; a slight, smart, side motion or jerk of which will be sufficient to cause your hook to penetrate, the barb of which should be finely pointed, and the whole made of the best and slightest steel wire.



THE BARBEL.—*Cyprinus barbus.*

This bluish-white carp is a lazy, wallowing gentleman, and the Launcelot Gobbo of the sub-aqueous pantries and cellars. The sound of the smacking of his lips tells you how fond he is of a good morsel. He acknowledges its receipt by the best music he can make, and yet what a shame it is that food should be thrown away upon this rather fine, though somewhat lubberly-looking, animal! So it is, however, and let him swallow good things ever so swiftly—let him be worm or gentle-crammed—his flesh is never the better for it, and his muscular tissues remain so flaccid and all his fibres so flabby, even whilst rioting in the

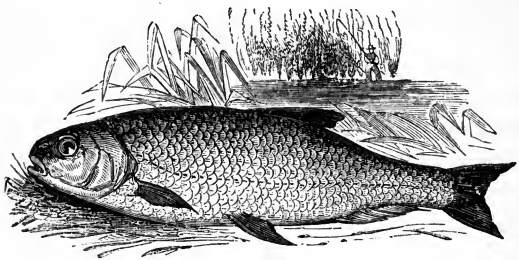
midst of abundance, that, if incontinently afterwards caught and slain, a coroner's jury should judge the cause of death on view of the body, they would pronounce it to be inanition, or the want of the common necessaries of life. He is one of those ungrateful creatures that always shame their nurses. His great angling value is his obstinacy, which gives him strength, notwithstanding the morbid appearances of the muscles, and he will resist your efforts to tow him out of the water with exciting energy. His large fins give him great power in the water, and he works heavily with them to get away when hooked, making them tread and beat the water like the paddles of a slow steamer.

Barbel spawn about midsummer, and are soon again as well as ever. July, August, and September are the best months to angle for them. Their general haunts are the deep parts of rapid rivers. They very seldom seek the shallow streams. They are generally in company, and, wherever you catch one, you may expect to catch two or more. They lurk under the shelter of overhanging banks, and, by their great power in stemming the stream, they are able to place themselves in the best positions for seizing displaced insects or small fish; for, though they will not, it is supposed, seize on live fish or other animals, they are considered greedily carnivorous—dead carcases of all sorts

being devoured by them. They delight in deeps, weed-beds, in hollows surrounded by shelving sides, in the strong, deep currents of bridges; and piles, weirs, and locks are favourite resorts of theirs. They chiefly feed during the night, and you cannot, in fine summer weather, angle too early or too late for them.

The lob-worm is the best bait for barbel; next, gentles, prepared greaves, and cheese and bullock's brains and pith. The latter are autumn and early winter baits. The most amusing and successful way of angling for barbel in the best rivers for them, such as the Thames and the Trent, is with the leger-line. The leger-lead should not be a perforated, flat piece of lead, but a perforated bullet, placed between two knots on the bottom-line, about two feet from the hook. The knots should be an inch or two apart, and the piece of line between them should be of strong gimp, which will resist better than gut the attrition of the constantly moving bullet. The bullet enables you to cast your bait to any reasonable distance, and, when it sinks to the bottom, it keeps rocking there to the motion of the water, and the hole in it allows the worm to work away a little and wreath itself about, so that the bait is continually in attractive action. When the barbel takes it and moves off with it, he gets checked by the resistance to the bullet of the upper knot on the

line; you feel the check—strike sharply, and you cannot well fail in striking the leather-mouthed fish. Play him with moderate force, according to his size and the strength of your tackle, and, as soon as circumstances will permit you to get his head out of water, do so. That deadens the play of his fins, and enables you to bring him over and into the landing-net. If you wish to catch punt-wells of barbel, ground-bait plentifully the spots you angle at for three or four nights previously. If you angle with worms, ground-bait with worms; if with gentles, ground-bait with them.



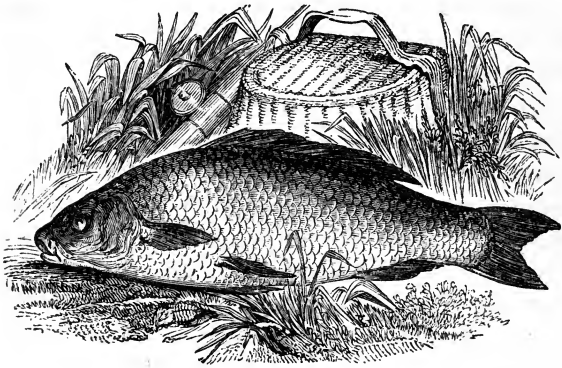
THE CHUB.—*Cyprinus Cephalus.*

This silvery bluish carp is an exceedingly fine, splendid-looking fish; but in him is fully realised the proverb, 'All is not gold that glitters.' His burnished gold outside hides a miserable interior. He is neither fish, flesh, nor good red herring. He is, to all intents and purposes, save in appearance,

what the French call him, *un vilain*, that is, a downright chaw-bacon or clod-hopper. Though M. A. Soyer, of the Reform Club, should condescend to dress him, I doubt whether he would make him fit to appear at any dinner-table.

This fair outside and foul inside beauty spawns in April, and is soon in its usual condition. In the summer and autumn months it will take very wantonly artificial flies, large red hackles, and large palmers of different colours. In the evening it can be readily seduced by artificial moths. Its angling value rests on its occasional fondness for artificial insects. I have caught dozens of them in a few hours with large red and furnace hackles. They are very fond of imitations of the humble bee and large blow-fly. In dibbing for them, use the grasshopper, cockchafer, and small butterflies. In bottom-fishing for them use worms; but in the hot months they are fondest of gentles and prepared cheese. They will also take pastes and salmon-roe with great gusto. In rivers that breed the lamprey that species of eel will be found a very deadly bait for chub and trout. Salmon will take it also. Put the lamprey on your hook as you would a worm. Fish without a float, with a No. 3 hook and salmon gut, one duck shot to be placed on the gut, about a foot from the hook. The bait is to be worked with the current, and sometimes slowly across and against it at

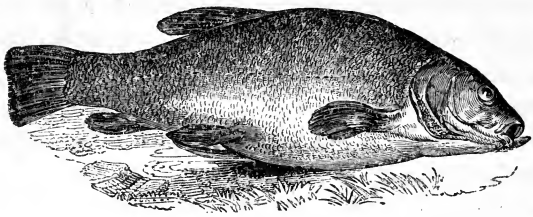
mid-water and lower. They are an exceedingly wary fish, therefore never let them see you or anything belonging to you through the water—*veluti in speculum.* They are cowardly fish, and after a rolling round or two give in.



THE CARP.—*Cyprinus Carpio.*

The yellowish olive carp stands at the head of a very numerous family, giving, in my opinion, no very honourable name to them. They are just as bad a race as the salmon tribe are excellent. If they are of Saxon descent, they are very inferior to our worst Celtic *Salmonidæ.* They happily eschew the mountain streams of the Gael, Celt, and ancient Briton. The Dutch waters of our low lands suit their burly bodies best. Neither I nor any one else can tell you how to catch satisfactorily with the angle the *pater familias* of the

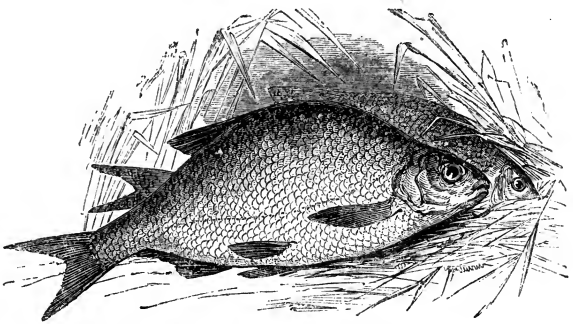
carp; he is so sly, and nibbles in such a namby-pamby way, that he strips the hook of its bait mouse-like. The angler that can catch large carp, Captain Williamson says, 'must possess several qualifications extremely valuable to the angler, and bids fair by general practice to be, according to the old saying, able to teach his master.' All I can tell you is, that you must fish for the carp proper with as fine tackle as you use for the roach, and at the same time it must be stronger, for carp grow to salmon size. The baits are worms, larvæ, grains, pastes, green gentles, and green peas. A sweet paste is perhaps the best. The angling season for carp is from February to October. In stagnant waters they are found in the deepest parts during the spring and autumn, particularly near flood-gates through which water is received and let off. In summer they frequent weed-beds and aquatic plants, and in rivers they are generally found in the still deeps having oozy bottoms, with rushes, reeds, and so forth. Worms are the best baits in spring; gentles and pastes in the summer and autumn. A Huntingdonshire correspondent once wrote to me, that he had a pond well stored with very large carp, and that after seven years' patience with line, rod, and hook, he could not catch one of them. He asked my advice. I told him that it lay in a net.



THE TENCH.—*Cyprinus Tinca.*

This mucous blackish olive carp inhabits waters stagnant on a loamy, clayey soil, with a soft muddy bottom. The best baits for tench are red worms, gentles, pastes, caddies, larvæ of all kinds, such as flag-worms, wasp-grubs, and caterpillars. They will also take water and garden snails. Fish close to the bottom, but not on it, particularly if it is a soft, muddy one. Captain Williamson says, 'Tench do not swallow a bait very quickly, sometimes holding it in their mouths for a while, therefore give them good time, and let them either keep the float down, or, as is often the case, let them rise with the bait, so as to lay your float on the water. This is an excellent sign, and warrants your striking, but rather gently, lest the fish be only sucking the bait, for he will seldom return after it is drawn from his mouth.' The best time for angling for tench is early and late of mornings and evenings; but they bite freely and all day long during the fall of mild rain in

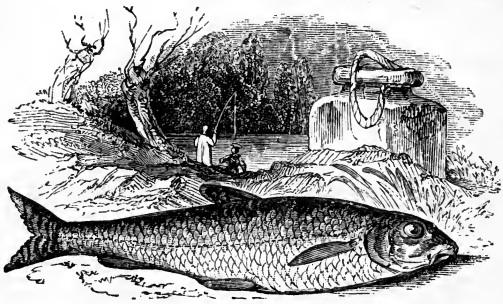
warm weather. The tench is said to be an aquatic apothecary—a leech that cures with its slime the wounds of other fish. The pike in consequence respects this submarine Machaon. Gratitude, therefore, is the pike's one virtue, linked with a thousand crimes.



THE BREAM.—*Cyprinus Brama.*

This broad olivaceous carp grows to a very large size in such rivers as the Ouse and the Oundle. Bream are an exceedingly coarse fish, but they bite freely in warm, gloomy, windy weather, and a warm, drizzling rain sharpens their appetites. A small red worm is the best bait for them in the spring; in summer, gentles and salmon-roe. They rise freely at natural flies, particularly the house-fly, bluebottle, and stone-fly, and in the evening at the various sorts of moths.

You must dip for them as cautiously as for chub, keeping carefully out of sight. In bottom-fishing your success will be augmented by ground-baiting with lumps of clay mixed with clotted bullock's blood.



THE GUDGEON.

This is a good, game little fish, and the best to initiate the young angler into the art of bottom-fishing. The best bait is a very small red worm or a part of one. Hundreds of them are to be caught in the moderately shallow streams of the Thames, and indeed in the shallows of all our mixed rivers. By a mixed river I mean one that is not confined to the production of the salmon tribe, but which produces the carp family and other coarse fish. If you can mud the bottom, that is, cause an artificial discolouration in the water by means of an iron rake, or any other way,

you will draw to the spot most of the gudgeon in the immediate vicinity, and very probably kill the majority of them. You must then move to another spot, and repeat the artificial discolouration of the water, as before. Mudding the water is the grand secret of success in gudgeon angling.

One word of advice in this penultimate page to the reader. Let him put in practice one maxim which I wish I had always done, viz. that of Dr. Warburton—'repetition is the soul of instruction.' Whenever he finds on a first perusal, any passage of the preceding pages obscure, let him re-peruse it attentively, and I flatter myself the obscurity will disappear. If it do not, let him try a third time, and if then a difficulty remain, the fault most probably will be mine. Still the reader will have done well, for having persevered. In like manner, should anything I teach seem at first difficult to be practised well, let reiterated attempts be made towards the attainment of perfection, and I am confident that the result of repetition will be surprise that a thing found, after some little patient practice, of such easy accomplishment, should ever have been considered otherwise.

This light labour of mine is on the point of ceasing. I may now write—*finis coronat opus*, whether with a complaisant thought or not, none, save myself, can know. I have finished with the

gudgeon, though in angling regularity, I ought to have concluded with the salmon. But a moral may be drawn from my proceeding. What man begins with he ends with—childishness. The childish passion of gudgeon-angling may return to the true angler when he has 'fallen into the lean and slippered pantaloon,' and it will do so, if it be true that 'the ruling passion is strong in death.'

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